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Original Contributions.

ADDISON'S DISEASE AND ADRENAL INSUFFICIENCY.*

BY BENSON A. COHOE.

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WHEN Thomas Addison, during the middle of the past century, communicated to the London Medical Society his famous treatise, "On the constitutional and local effects of disease of the suprarenal capsules," a notable advance was made in internal medicine. Its import was greater than the mere assemblage of a group of symptoms into the entity of the disease which bears his name. By attributing to the adrenal glands an important *rôle* in the body economy, heretofore unsuspected, he quickened the interest of physiologists into investigating the functions of the ductless glands of the body, an interest which has been increasing with the passing years. At his time the part that these organs played in the general economy was almost or altogether unknown. There was, as Addison stated, an ill-defined impression among physiologists that the adrenals in common with the spleen, thymus and thyroid ministered in some way to the elaboration of the blood.

It was while seeking vainly to throw some light upon the etiology of a remarkable form of anaemia that Addison was led into an extensive analysis of every organ of the body. Although such careful study failed to elucidate an evident cause for the anaemia, he noted in a number of cases with symptoms not unlike those of the idiopathic anaemia, a peculiar appearance of the suprarenal capsules. With the conservatism characteristic of the true scientist, he for a long time refrained from venturing to publish an account of his

* Read at the meeting of the Canadian Medical Association, Ottawa, June, 1908.

observations lest, "by partial and prejudiced observation, or by an overstatement of facts, he might incur the just censure of those possessing a sounder and more dispassionate judgment than himself."

To Addison's original lucid and masterful description of the malady there has been but little to add since his time. The following brief notes concerning the clinical aspect of the affection are based upon a study of the cases which have come into the Wards of the Johns Hopkins Hospital. The fact that among some twenty thousand medical admissions there are recorded only seventeen cases in which a certain diagnosis of Addison's disease could be made is indicative of the comparative rarity of the affection. A questionable diagnosis made in some eleven other cases serves to emphasize the difficulty of establishing an exact diagnosis *intra vitam*. Statistics have shown that the disease preponderates among males, and of the seventeen cases here referred to only three occurred among females. It was noted as being rare in the extremes of life, only one case occurring in the first decade, and but one after the sixth decade. Seven of the patients were between thirty and forty years of age and an equal number between forty and fifty.

The four cardinal symptoms of the disease, asthenia, abnormal pigmentation of the skin and mucous membranes, gastro-intestinal disturbances, and general nervous phenomena, were present in varying degrees in all of the cases. The profound asthenia, so characteristic of Addison's disease, is one of the most constant symptoms. It may be the first symptom to attract the attention of the patient and is as a rule progressive. There is usually great fatigue upon exertion, and frequently apparently causeless sudden attacks of weakness amounting almost to collapse. In one patient there were noted definite attacks of asthenia occurring daily at about the same hour over a considerable period. Towards the close of the disease the cardiac muscle shares in the general muscular weakness and the pulse may become imperceptible. In one patient the heart beat grew so feeble that the apex could not be located with the stethoscope.

The pigmentation constitutes the most striking sign of the disease and is almost invariably present in greater or less degree. It was well marked in all of the cases in which a certain diagnosis could be made. In only one case, in which other symptoms pointed to the presence of Addison's disease, was pigmentation absent. In the literature there are frequently described cases of this affection without melanoderma, but many authorities hesitate to regard such a syndrome as a true morbus Addisonii. The discoloration of the skin develops insidiously and varies from a light yellowish brown tint to a brownish black or mulatto color. It may frequently precede the appearance of the asthenia (in one recorded case by twelve years) although they often begin synchronously. In the case of a boy it was noticed that the pigmentation appeared at the age of

six years, while the other symptoms of the disease remained latent until four years later.

The melanoderma of this disease is an augmentation of the normal physiological pigmentation of the body. It appears earliest and most constantly on the exposed surfaces (face, neck and hands) and upon those parts of the body which normally show pigmentation (the areolae, linea alba, axillae, bends of the elbows, genitalia and buttocks). Later, the entire skin may become involved, while any localized area, subject to cutaneous irritation, is apt to become deeply pigmented. The waist line and the site of old scars and plasters frequently show marked bronzing. The pigmentation is as a rule progressive, although remissions in its intensity following an improvement in the general condition of the patient are known to occur. Again, the pigmentation at times would appear to bear some relation to the neuralgic pains of the disease. In one patient, subject to paroxysms of abdominal pain, it was noticed that the skin grew perceptibly darker after each paroxysm.

The discoloration of the mucous membranes is present in the majority of the cases and is an important aid in diagnosis. It may occur on the buccal mucous membrane as a brownish tinge, or in the form of bluish black spots, especially along the line of closure of the teeth. There may be patches on the hard and soft palate and on the under surface of the tongue. In one case a large irregular patch was noted on the dorsum of the tongue. The conjunctivae and vaginal mucous membranes are frequently involved, exceptionally the vocal cords may show pigmented spots.

The gastro-intestinal disturbances are characterized by loss of appetite, nausea and occasional vomiting. There may be diarrhoea or constipation. In some patients gastric symptoms are absent, in others pronounced. In one case the vomiting was a severe and persistent symptom, the patient having vomited daily for a year before admission to the hospital.

The general nervous symptoms are among the most interesting phenomena of the disease. There may be present certain mild cerebral manifestations, such as apathy, headache, insomnia, vertigo and attacks of syncope in the early stage of the disease, while later on in the course delirium, extreme apathy and somnolence may usher in a terminal coma. Neuralgic pains, localized most frequently in the lumbar and epigastric regions, and in the extremities, are common. Pain was present in fourteen of the seventeen cases analysed, and in three of these was the earliest symptom noted. One patient had frontal headache for a year as a first and persistent symptom. In another patient so severe were the pains in all of the extremities that a peripheral neuritis was suspected. In a third patient the other symptoms of the disease were preceded by a facial neuralgia for a period of four years, after which epigastric pains developed. The abdominal pains were paroxysmal in charac-

ter, occurring three or four times a year and accompanied by vomiting. These paroxysms were associated with general muscular tenderness, especially of the arm muscles, developing several days previous to the paroxysms.

The course of the disease is chronic, and only exceptionally is the onset acute and the progress rapid. Two years may be stated as the average duration of the disease as determined from a large collection of cases. The termination would seem to be invariably fatal; in the few cases which have been described as cured the diagnosis must be regarded as doubtful. There are at times marked remissions in the progress of the affection with periods of improvement. The duration of symptoms in the patients, in whom an *exitus lethalis* resulted while in the hospital, ranged from seven months to twelve years.

It is not uncommon to find a tuberculous process in the body elsewhere than in the adrenals in Addison's disease. In four of the cases there were definite pulmonary lesions; in two other cases such lesions were suspected, while a seventh case was associated with an acute miliary tuberculosis.

As a rule patients suffering with the disease show more or less emaciation; occasionally they may appear well nourished, and at times a considerable gain in weight takes place upon treatment. With one patient the main complaint was of loss of weight. Another patient had lost thirty-five pounds in three months.

Addison's disease has been stated by some writers to be characterized by a febrile or subnormal temperature. This must be regarded as an erroneous conception in view of the fact that a mild grade of fever is almost invariably present. The fever as a rule closely simulates that of a mild tuberculous infection with a slight evening rise and morning remission. In the advanced stages there may be a marked evening elevation with a fall below normal in the morning. In but one case did the temperature remain about normal, but even in this instance there were frequent slight elevations.

A study of the blood picture in the cases is of interest in revealing the fact that a marked anaemia is by no means characteristic of the disease. The erythrocytes, in the peripheral blood at least, may be increased above normal, in one case reaching 6,600,000 per cmm. A severe secondary anaemia was present in but one case and this complicated with a pulmonary tuberculosis. The average cell count, compiled from all the cases, showed: erythrocytes, 4,454,000; leucocytes, 7,460; haemoglobin, 77 per cent.

The blood pressure in this disease is of greater significance than the cell count. The thready and frequently imperceptible pulse has been commented upon frequently in the literature, yet but few real blood pressure estimations have been recorded. If it be true that the disease is dependent upon a decrease, or absence, of adrena-

lin, a pressor substance, in the circulating blood, it is to be expected that a low pressure would be a constant feature. Potain regards it as the affection with the lowest of all blood pressures. Janeway, on the other hand, has shown that in some cases at least the pressure may be normal, and has recorded one case in which the systolic pressure was 140 mm. Hg. in two cases reported by Stursberg the systolic pressures were low, being 70 and 65 mm. respectively. In no disease do we find so low a record preceding exitus. In one case admitted to the ward with a systolic pressure of 105mm. there was a fall to 45mm. a few days before death, while in a second case, with a pressure of 90mm. on admission, the pressure fell to 48mm. The highest pressure recorded in any of the cases was 130mm., and the average systolic pressure would appear to be below 100 mm. Hg.

There were no marked urinary disturbances noted in any of the cases. Polyuria, at times occurring periodically, was present in a few of the patients. A trace of albumin is not uncommon. The specific gravity was fairly normal, ranging from 1.015 to 1.025. The substance, haemátoporphyrin, described by MacMunn in the urine of Addison's disease, was not found to be present in several of the cases in which a special examination was made for its presence.

The pathogenesis of Addison's disease still remains obscure. It has proven so far to be a clinical, not a pathological, entity. Since the time of Addison numerous theories have been advanced, ever changing and frequently abandoned, with increased physiological and pathological light concerning the function of the adrenals. It has been estimated that definite lesions of the adrenals are present in about 88 per cent. of the cases (Hansemann). In the remaining 12 per cent., the glands have been found to be apparently normal at autopsy. By far the most common pathological lesion is that of tuberculosis of the adrenals and neighboring structures. In two of the three cases which came to autopsy fibrocaseous changes were found in the glands, while the third showed simple atrophy. The tuberculin test was given to nine of the patients while in the ward with a positive reaction in all but one instance. Other less common changes in the adrenals are chronic interstitial inflammation, neoplasm, and hemorrhages into the glands.

It will suffice to recall briefly the more important theories that have been advocated from time to time in explanation of the disease. The experimental work of the early observers seemed to indicate that the adrenals had little or no function in the body economy. Influenced by this view, Wilks and Greenhow attempted to explain the various clinical symptoms by the secondary morbid changes induced in the neighboring semi-lunar ganglia, solar plexus, and sympathetic nerves. This so-called nervous hypothesis failed

to explain cases in which the semi-lunar ganglia have been found apparently healthy; nor did it explain cases of simple atrophy of the adrenals. Such considerations led to a rejection of the nervous theory. A second theory, due largely to the early researches of Brown-Sequard, expressed the view that the adrenals removed pigmentary substances and various toxins from the blood, and that Addison's disease was due to a suppression of this function. Experimental evidence, however, has proven this view to be erroneous.

The greatest advance in our knowledge of the physiology of the adrenals was made through the researches of Schaefer and Oliver, and of Abelous and Langlois, who demonstrated the fact that the adrenals furnish an internal secretion. They were able to obtain from normal adrenals a substance, adrenalin, which acts primarily in raising the blood pressure. Furthermore, they were able to show that from adrenal glands obtained from cases of Addison's disease, no such extract could be obtained. These facts afforded almost convincing evidence in favor of the theory of adrenal inadequacy and gave rise to the generally accepted modern conception of the disease.

The question now arises, can we reconcile the clinical picture of Addison's disease with a cessation of function of the adrenal glands? With regard to many of the symptoms an affirmative answer is possible. In the experimental animal, deprived of its adrenals, a partially complete syndrome of the affection may be reproduced. Both the general asthenia and the cardiac weakness have been noted in such animals. The many nervous phenomena can be less easily ascribed to simple adrenal inadequacy; on the contrary, many of these nervous symptoms point to a direct implication of the nerve areas. Even more difficult to explain is the bronzing of the skin. The experimental animal does not become pigmented, and the phenomenon of pigmentation would seem to point more forcibly than any of the other symptoms to an involvement of the nervous system. Again, there are recorded many cases of Addison's disease with melanoderma, in which at autopsy the adrenals were found normal, and conversely there may be lesions of the glands without pigmentation or other symptoms of the disease.

These typical cases of the disease have caused clinicians to question the direct dependence of the affection upon adrenal inadequacy, and have stimulated the pathologists into investigating the nervous system more closely for the primary cause. The areas most frequently described as showing changes are the semi-lunar ganglia. Here there may be a circumscribed peritonitis, or connective tissue inflammation with degeneration of ganglion cells and nerve fibres. Degeneration of the splanchnic nerves and changes in the spinal cord have been described. Fleiner was able to follow

such pathological changes through a large part of the sympathetic nervous system, including the thoracic and cervical ganglia. The same author found degenerative processes in a number of the peripheral nerves.

The fact that the clinical picture of Addison's disease does not seem to depend exclusively upon a gradual destruction of the adrenals, nor yet entirely upon a disease of the sympathetic system, but that both of these factors would seem to be concerned, has led pathologists to study the possible relation of a lesion in the chromaffine system of the body to the etiology of the disease, since this tissue is common to both the adrenal and the sympathetic system. The chromaffine cell, so named by virtue of its affinity for staining with chromic acid salts, was first described by Kohn in 1898. Such cells are found in the medulla of the adrenal, the sympathetic ganglia, the carotid and coccygeal glands. This tissue Kohn believed to be an organ *sui generis*. There is much evidence to show that the physiological function of the chromaffine system is to produce a substance which raises blood pressure. The medulla of the adrenal is rich in chromaffine cells, while the cortex is wanting in such elements. The extract of the cortex, we know, does not contain a pressor substance. Zuckerkandl has shown that the parasympathetic bodies of the human foetus, which have an abundance of this tissue, contain a substance which raises blood pressure. Mulon was able to demonstrate a pressor substance in the extract from the carotid gland of the horse.

Wiesel believes that Addison's disease is an affection primarily of the whole or a part of the chromaffine system, including the medulla of the adrenal. He studied seven cases, in all of which there were tuberculous lesions in the medulla of the adrenals. The semi-lunar ganglia showed microscopic changes. Microscopically he found a complete absence of chromaffine cells throughout the entire nervous system. Gierke, a supporter of this theory of Wiesel, has examined the ganglia of several aged individuals dying of other diseases, and at no time did he find an absence of chromaffine tissue. Beitzke has described total destruction of both adrenals with a retention of chromaffine tissue in the sympathetic system. The time is not ripe as yet to express an opinion concerning the validity of this recent theory of the disease. Many careful histological investigations of the sympathetic system with special technic will be required before a conclusion can be reached. In many respects this theory would serve to explain, possibly better than any of the former views, the atypical cases of the disease and those in which the adrenals have been found to be apparently normal at autopsy.

Boinet has recently applied the term Addisonism to a clinical syndrome, closely simulating a Morbus Addisonii, which is charac-

terized by slight pigmentation, low blood pressure, and at times certain nervous manifestations. This condition he attributes to an insufficiency of adrenal function, due to an absence or deficiency in the internal secretion of the adrenals. It has been shown that the medulla of the adrenal may be wanting in adrenalin in patients dying from chronic disease. The condition is most commonly encountered in pulmonary tuberculosis, where a low blood pressure and a mild grade of pigmentation are almost constant features. It has been noted by Boinet in cancer of the stomach, in tertiary syphilis and in exophthalmic goitre. Mott and Halliburton found atrophy and degenerative changes in the adrenals in many cases of chronic nervous diseases, and concluded that the adrenal glands, like other secreting glands of the body, are adversely affected by any disease which impairs the general nutrition of the body, especially diseases of a chronic and wasting character.

It has, furthermore, been shown that there may be an acute adrenal insufficiency in many acute infections, especially in diphtheria, where the toxins produce pathological changes, such as cloudy swelling or necrosis in the adrenals. Some clinicians believe that there is in acute diseases with low blood pressure, or threatened failure in the circulation, a therapeutic indication for the administration of adrenalin. Crunbaum states that in healthy persons the administration of suprarenalin extract does not alter the blood pressure, whereas a rise in blood pressure following the giving of the extract indicates adrenal inadequacy. We have an analogous condition in the unmasking of a larvate hyperthyroidism by the administration of thyroid extract. The same writer has also suggested that certain forms of neurasthenia associated with a low blood pressure are manifestations of adrenal insufficiency. The whole subject of adrenal inadequacy presents an interesting problem for future investigations.

Since it has been frequently stated that a diagnosis of Addison's disease is impossible during the life of the patient, a word concerning some of the diagnostic methods at our disposal may be of interest. The fully developed clinical picture of the typical cases is easy of recognition, while the atypical cases are equivocal. The fact that tuberculosis of the adrenals is by far the most constant lesion of the disease renders the tuberculin test of great value, especially in those cases in which there is no evidence of an associated tuberculosis elsewhere in the body. The estimation of the blood pressure, here probably the lowest of any affection, gives us valuable information concerning the cardiac asthenia. The presence of haematoporphyrin in the urine is believed by some to be of value in the differential diagnosis. During the past year Sergent has described a diagnostic sign in Addison's disease which would appear to be helpful. If a pointed instrument, or the nail of the

finger, be drawn quickly over the abdominal wall, a white line (la ligne blanche dite surrénale) is left in its streak, forming a striking contrast to the surrounding bronzed skin and persisting for several minutes.

The obscurity which prevails concerning the pathogenesis of the disease has influenced the views which dominate its therapy. There has up to the present been no well authenticated cure of a case of Addison's disease. Various therapeutic measures have at times been credited with beneficial effects, probably due to the fact that the disease has a fluctuating course with intercurrent remissions. Following the discovery of the internal secretion of the adrenals, it was hoped that a rational treatment could be established by means of organotherapy. Unfortunately, suprarenal medication has not yielded the brilliant results obtained by thyroid feeding in myxœdema and cretinism. Suprarenal feeding was employed in five of the cases of this series without marked results. In but one case was a distinct improvement noted. Adams, after an extensive study of the cases recorded of Addison's disease treated with organotherapy, concludes that upon weighing the whole evidence, "there yet remains a residual conviction that suprarenal medication has been of real value in a certain class of cases of Addison's disease." Bramwell thinks that those cases which improve on organotherapy may be due to adrenal inadequacy alone, and that the remainder are due to an additional lesion, and suggests that those cases which improve have a non-tuberculous lesion. If this be true, the importance of diagnosing a tuberculous process by means of the tuberculin test is obvious. In the tuberculous class of cases tuberculin immunization may prove to be a valuable therapeutic procedure.

Discussion.

Discussion by Dr. A. McPhedran, Toronto, on Dr. Benson Cohoe's paper on Addison's Disease and Adrenal Insufficiency:

Dr. A. McPhedran complimented Dr. Cohoe on the excellence of his paper. He was inclined to the view that the gland was involved in all cases, and in the great majority it is the original seat of disease. In some cases disease in the neighborhood of the gland may destroy its nerve supply, and this arrests its function.

The symptoms are closely parallel to those of the other essential anæmias—the anæmia which may be moderate, gastro-enteric disturbances, slight fever, and preservation of subcutaneous adipose tissue, and in addition the great weakness and the pigmentation, all indications, as shown especially in pernicious anæmia.

He had seen few cases with characteristic symptoms. In one —that of a lady seen with Dr. Crawford Scadding last year, she had pulmonary tuberculosis in 1900, and made a good recovery.

Her weight had risen from less than 100 pounds to 140. About one and a half years ago she began to lose strength, and pigmentation developed very rapidly and became very dark, almost black. There was much vomiting and diarrhœa, and the weight fell rapidly to a very low point. Suprarenal extract raised it moderately, but more than 7 or 8 tablets always causes vomiting. She is taking 4 daily, and has improved so as to be able to drive out; the pigmentation has greatly lessened, and weight raises to 100 pounds.

In a man at present under his care in the General Hospital, the symptoms are all characteristic. His blood pressure is about 100, and rises only to 112 by adrenalin chlorid solution (1 in 1000) in 15.

The failure or variation of adrenalin treatment may probably be explained by the associated conditions, especially tuberculosis of the organs and the disease of the nervous system. In thyroid gland disease is not so complicated, and therefore treatment by thyroid feeding gives more satisfactory results in cretinism, myxœdema, etc.

Dr. W. C. Heggie, Toronto, gave the history of a case of Rapid Addison following 4 years after tubercular of lung and peritoneum.

Two questions on Dr. Cohoe's paper by Dr. R. D. Rudolph:—

1. Are not the adrenal glands often over or under active without any organic disease?

2. Is it not probable that in cases where patients have died from Addison's disease, and the glands have been found to be normal, that the nervous combat by the sympathetic system has become so poor that the glands do not act, and hence death with symptoms of Addison's disease and yet normal adherents?

Discussion by Dr. J. H. Elliott, Toronto:

With tuberculous infection of the adrenals found in 88 per cent. of cases of Addison's disease, it seems rather remarkable that the symptoms of this disease are not found present in a larger proportion of cases of pulmonary and other tuberculous infections.

In over 2,000 cases of pulmonary tuberculosis, many of which showed infection of other organs, and ran a chronic course sufficiently long for symptoms to develop, I have only observed one in which Addison's disease appeared, and this, I think, is a fair example of its incidence in the records of large hospitals and sanatoria.

This patient, as in the cases reported by Dr. McPhedran and Dr. Heggie, developed it many years after the healing of a tuberculous ankle, and nearly two years after clinically cured of pulmonary tuberculosis.

Would it be possible that adrenal insufficiency due to adrenal infection may play some part in the asthenia and wasting so marked in some patients whose pulmonary disease does not seem

to be sufficiently advanced or extensive to account for the severe grade of these symptoms?

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THE SURGERY OF THE AUDITORY LABYRINTH.*

BY CHARLES M. STEWART, M.D., M.R.C.S. (ENG.),
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ALTHOUGH there has been operative interference on the auditory labyrinth since 1897, when Jansen gave his classical paper on the subject before the Medical Congress at Moscow, yet it is only within the last few years that deliberate and planned operations have been described for the relief of symptoms produced by labyrinthitis. To-day we have minutely described such operations as superior vestibulotomy, inferior vestibulotomy, double vestibulotomy, sequestrotomy, extirpation and curettage. For the scientific establishment of labyrinthine surgery we owe much to J. D. Richards, of New York; Richard Lake, of London, and to Jansen himself.

My personal experience in this work is very limited, having only to do with four cases. The reason for selecting this subject was not that I have anything new to bring forth, but only that the paper might stimulate discussion and interest in labyrinthine work. I feel sure that a great many fatal mastoid cases have occurred on account of the surgeon neglecting to search for labyrinthine disease when he was doing the radical mastoid operation.

A most exact knowledge of the anatomy of the internal ear is essential before any surgical interference is undertaken. This can best be obtained by chiselling out a few labyrinths on the cadaver. The physiology of the internal ear is rather unsettled, particularly the vestibular part. The labyrinth is composed of two main parts—the cochlea, which contains a membranous structure, wherein is a specialized epithelium essential for hearing; the vestibule and semicircular canals, which also contain a specialized epithelium connected with static and dynamic equilibrium.

The labyrinth is situated in the petrous portion of the temporal bone. To its inside is the temporo-sphenoidal lobe of the cerebrum, covered by the meninges of the middle cranial fossa, behind is the cerebellum covered by the meninges of the posterior fossa. The dome of the jugular fossa is directly below the vestibule and posterior semi-circular canal. The internal carotid artery lies directly in front and below the cochlea. On the inner side lies the fundus of the internal auditory canal with its meningeal prolongation, and so bringing the subarachnoid space in intimate relation with the

* Read before the Ophthalmological and Oto-Laryngological section of the Academy of Medicine, Toronto, November, 1908.

modiolus of the cochlea. The vestibule is an ovoidal space with the following dimensions: 1-5 inch x 1-5 inch x 1-8 inch. In its roof, posterior wall and floor are the openings for the semi-circular canals, while in front and external is the first turn of the cochlea. The outer wall of the vestibule corresponds to the promontory on the inner wall of the middle ear, the tympanic part of the Fallopian canal, and the two foramina, viz., ovale and rotundum.

Facial Nerve.

After the facial nerve leaves the fundus of the internal auditory meatus, it passes outwards and slightly forwards for 1-8 inch; here it has an enlargement on it, called the geniculate ganglion. From this point it passes backwards and downwards at right angles to the first part, and at an angle of 15 degrees with the horizon. This second part of the nerve is about 1-2 inch long. The middle portion of this part of the aqueduct is visible in the middle ear. Often this portion of the canal is incomplete, thus exposing the nerve in the tympanum. Below the nerve at this juncture is the foramen ovale; above it is situated the ampullæ of the external and superior semi-circular canals; to its inner side is the vestibule. The last 1-8 inch of this second portion of the facial nerve is buried in the posterior wall of the tympanum, and is just above and behind the pyramid, from which emerges the stapedius muscle. The third part of the nerve passes downwards and a little outwards and backwards, making an angle of 120 degrees with the second part of the nerve. The third part of the nerve is in relation to the deepest part of the posterior meatal wall. The nerve leaves the skull at the stylo-mastoid foramen.

Pathology.

The vestibule is the seat of the greatest pathological activity. Infection takes place in two principal points, viz., the foramen ovale, and from an erosion in the external semi-circular canal, as it lies in the inner wall of the aditus.

Inflammatory conditions in the labyrinth are due to the same variety of organisms that are found in middle ear suppuration. When it is a very virulent infection, the germ is usually the streptococcus pyogenes. Cholesteatomatous conditions are occasionally met with in the labyrinth, and tubercular labyrinthitis is fairly common in tuberculous suppuration of the middle ear. Caries and necrosis follow labyrinthitis, depending on the acuteness of the inflammation. Sequestra sometimes form; the cochlea may form one, but the vestibule usually goes with the semi-circular canals. Death in labyrinthitis is due to intra-cranial complications—either meningitis or abscess of the brain. The tract of infection is usually along

the filaments of the auditory nerve, and in this way the subarachnoid space becomes infected. Bezold has estimated that labyrinthitis occurs in 1 in 500 cases of chronic suppuration of the middle ear. This seems a very small percentage; but this may be accounted for in that the cases most frequently occur in children, and as the symptoms are very vague at best, they are especially so in young children. In children, the bone separating the labyrinth from the middle ear is thinner and less dense than in adults, thus explaining why labyrinthitis is more common in the first decade of life. In children with acute otitis media, you may suspect labyrinthitis where there is marked systemic infection.

Symptoms.

It is impossible to definitely diagnose labyrinthitis before operation. Symptoms which we consider point to labyrinthine involvement may be well-marked, and yet when we do a radical mastoid operation, the labyrinth is found perfectly intact. On the other hand, fistulous openings may be found in the labyrinth when we least expect them. It is a serious matter to explore a healthy labyrinth in an infective area, such as in a mastoid operation. So it is good practice not to open a labyrinth that shows no external signs of disease. When doing a radical mastoid operation, the external wall of the labyrinth should always be carefully searched for fistulæ. The use of adrenalin greatly facilitates a good view being obtained of the field of operation. A strip of gauze, previously soaked in adrenalin and then packed in the tympanum and mastoid cavity and left there three minutes, will blanch the parts thoroughly. Carefully examine with a probe the foramina ovale and rotundum, also the promontory. The external semi-circular canal just opposite the aditus is a common seat of a fistulous opening.

Symptoms which are useful in labyrinthine diagnosis are nystagmus, vertigo and disturbances in equilibrium.

Nystagmus.

The patient is never conscious of this condition; so this symptom must always be sought for by the surgeon. Pressure on the stapes will produce nystagmus if the labyrinth is healthy. Barany has worked out a caloric test for finding out whether a labyrinth is functionating or not. It is this: When syringing a middle ear with cold water, the eyes turn to the opposite side from the disease, and with warm water to the same side as the disease. In gross lesions of the labyrinth it is impossible to produce nystagmus by heat or cold. Occasionally following an ordinary radical mastoid operation we note that nystagmus, vertigo and disturbances of

equilibrium have developed. This is due most likely to luxation of the stapes or injury to the external semi-circular canal.

Vertigo.

This condition is produced by abnormal stimulation to the specialized end organs in the maculæ and cristæ of the vestibule and semi-circular canals. Deaf mutes and animals who have had their labyrinths removed have no vertigo. Patients suffering with vomiting and vertigo, who have suppuration in the middle ear, is very suggestive of labyrinthine involvement. Cochlear lesions do not produce vertigo. Cochlear disease is manifested by deafness, which is a constant symptom. Tinnitus is an occasional symptom.

This labyrinthine giddiness must be differentiated from the giddiness produced by cerebellar disease. This can usually be done by examining the eyes and noting the pulse.

Rombergism.

Patient standing on one foot, and eyes shut, sways or falls to the side of the diseased labyrinth.

Gait.

The gait is often characteristic. The patient walks with feet widely apart, sways considerably and has a tendency to go to the affected side.

These symptoms are all marked for a few days when a healthy labyrinth has been interfered with, but when the labyrinth is gradually encroached upon by disease, the change is so gradual that the other organs in the body which contribute to keep perfect equilibrium take on the function of the diseased labyrinth.

Facial paralysis occurring in a case of suppurative otitis media is not uncommonly due to destructive changes in the aqueduct of Fallopius, and would be very suggestive of labyrinthitis.

There is no labyrinthine localization. The following four cases I have notes of:

1. Tubercular labyrinthitis. Woman aged 31 years. Suffered from chronic suppurative otitis media in left ear for many years. Radical mastoid operation done. Result good. Cavity dermatized and dry in seven weeks afterwards. In two years afterwards patient developed phthisis, and shortly afterwards the ear began discharging again. In the pus were found tubercle bacilli. Facial paralysis developed, and the nerve could be seen when the ear was mopped out with absorbent cotton. The nerve became disintegrated and disappeared, due probably to the irritation of the pus and to the spirit drops that were used. The patient was incapacitated by vertigo. The labyrinth was extirpated; semi-circular

canals, vestibule, and a portion of the cochlea removed. Vertigo persisted for about 10 days. Ear healed up perfectly. To-day patient is living and looking very well. Vertigo is all gone. The facial paralysis persists.

2. Man aged 19 years. No previous history of labyrinthine trouble. In the course of performing a radical mastoid operation, a fistulous opening was discovered in the external semi-circular canal, pus was oozing out of it. The canal was opened up to the ampullæ and curetted. Not followed by vertigo. Second day afterwards patient sat up in bed and had ear dressed. No giddiness. Recovery uneventful.

3. Woman aged 36. Radical mastoid operation was being performed. Stapes seen in foramen ovale and was very loose. Caries around the opening. Stapes removed. Inferior vestibulotomy done. Vertigo followed operation for about two weeks. Hearing destroyed.

4. Woman aged 41. Suffered with suppurative otitis media for 12 years. Facial paralysis for three weeks. Radical mastoid operation done. Large sequestrum picked out of the labyrinth. It was composed of portions of the vestibule and semi-circular canals. Recovery uneventful. Facial paralysis followed, but was nearly gone one year afterward.

Operations.

The radical mastoid operation must always be previously done. The upper part of the skin incision should be made well forward, so that the auricle may be pushed well forward and downward. The facial ridge must be lowered as much as is considered safe for the nerve.

Operations on the cochlea are much more serious than on any other part of the labyrinth. The danger lies in injuring the modiolus, and so opening up macroscopical channels for infection to be carried to the meninges. The cochlea should not all be removed. Only the upper two whorls at most should be removed, and special care taken not to injure the modiolus. Both Jansen and Richards lay special stress on this point. Proceed to the cochlea by way of the promontory.

Vestibulotomy.

The vestibule may be opened by way of the external semi-circular canal, and above and behind the facial nerve. This method is called superior vestibulotomy. Or it may be opened by way of the foramen ovale, which is below and in front of the facial nerve. This method is called inferior vestibulotomy. Although inferior vestibulotomy has the best position for drainage, yet superior vestibulotomy is the preferable operation, for the following reasons:

1. The region is more accessible.
2. There is less hemorrhage.

3. You obtain a better view into the vestibule.

4. You can explore the external semi-circular canal at the same time.

Between these two openings into the vestibule is a ridge of bone, and in it is the facial nerve. Milligan has called this the bridge operation. The two operations should practically always be done together. The operation then is called double vestibulotomy. It is better not to expose the facial nerve, for, in the after-treatment, it is likely to become injured by the discharge from the granulations. Facial paralysis usually occurs if it is exposed. This may clear up in time, provided the nerve does not become disintegrated.

Sequestrotomy.

This was the first described operation on the labyrinth. Facial paralysis was the usual result. This was due either to disease or to the destruction done by removing the sequestrum. Suspect a sequestrum where granulations persistently re-form. Never remove a sequestrum forcibly. If necessary, chisel away healthy bone, so that the sequestrum may be picked out of its bed.

Extirpation of Labyrinth.

When this operation is done, it is usually for tuberculous conditions.

Indications for Operation.

1. Labyrinthitis, as evidenced by one or more fistulous openings or other signs of disease in the external wall of the labyrinth.

2. Luxation of stapes.

Jansen recommends operation after 24 hours, if there is nystagmus, disturbances of equilibrium increasing, tongue coated and temperature going up.

3. Meniere's disease—labyrinthine apoplexy. Patients suffer with marked vertigo, intense nausea, severe tinnitus and absolute deafness. Richard Lake has reported five cases where he has done an ablation of the vestibule. He operated for vertigo. The cases had never suffered at any time with suppurative otitis media.

4. A patient suffering with suppurative otitis media, and having vertigo, vomiting, nystagmus and disturbances of equilibrium, should have a radical mastoid operation done at once, and careful search made for labyrinthine mischief. In such a condition, a Heath's mastoid would be contra-indicated.

It is interesting to note that there is no weakness in the muscles of the body after operative interference with the vestibule and semi-circular canals. Ewald's experiments on animals showed that the labyrinth was responsible for the tone of the skeletal muscles. Operations on man support Crum Brown's theory, given many years ago, that the labyrinth is concerned in giving information as to the position of the head and body after rotation.

142 Carlton St.

THE NEW CITY MORGUE.

BY ARTHUR JUKES JOHNSON, M.B., M.R.C.S. (ENG.),
Chief Coroner, City of Toronto.

At last the City of Toronto has a Morgue. It has taken a long time to get it; but, though slow in coming, it is quite up to the expectations of all those who are interested in it.

Forty years ago the only public morgue in the recollection of the oldest inhabitant was a small frame building which stood on the sand near the foot of what is now Frederick Street. It was about fifteen feet long by ten or twelve wide, and was lit from above by a row of small panes of glass which went round a central part of the roof that was about a foot higher than the main roof. This building contained a table, and, as it was close to the lake front, generally a few pike-hooks. It had a door in the east end, and was ventilated by means of circular registers, such as are used in heating rooms, which were placed vertically, one or two in each wall of the building, about two feet above the floor; as these could be turned from the outside, they made convenient peep-holes through which anyone wishing to see what was going on inside could look.

This old building was replaced between thirty and thirty-five years ago by the building until recently used as the City Morgue, which still stands on the north-west corner of Frederick Street and the Esplanade. Originally this building had a concrete floor throughout, and many of the coroners at present in the City of Toronto can remember the pangs of cold which they suffered when they undertook to hold inquests during the winter in this awful building, with their feet on the concrete floor. Nine or ten years ago many of the coroners absolutely refused to hold any inquests in this building.

Latterly the place became more and more disgraceful, and for a long time has been unfit for use. It was never protected, and there are many gruesome stories told of incidents that occurred there.

Many might think that protection was unnecessary and that no man would have nerve enough to commit any depredation on a body in the Morgue, and yet the following incident is vouched for: The body of a too-venturesome skater who had gone through the ice on the Bay, having been fished up, was put into the Morgue. In a very short time his wet clothing became a solid mass of ice. He happened to have on a new pair of skates, the old kind that had a strap round the boots; the next morning it was discovered that during the night somebody, who evidently wanted a new pair

of skates, had pried up one of the windows at the Morgue, cut the frozen straps that held the skates to the feet of the deceased, and escaped.

All this is now done away with. The new Morgue is undoubtedly the finest building of its character, and the most perfectly equipped for the purposes for which it was built, that there is on this continent. It is a large square stone and brick building situated on the north side of Lombard Street, on a lot which extends from No. 84 to No. 96. The main door, in the middle of the building, is reached by a set of stone steps, and on entering the building the first room on the east side is a general office for the purposes of the Morgue, and a place where messages can be taken for the ambulance of the Medical Health Department. During the day in this room there is a stenographer, with a telephone beside her; she leaves at 5 p.m., and her place is taken by the caretaker, who is on duty all night. Besides these two, the driver of the infectious diseases ambulance is about the Morgue when not occupied in moving patients to the Isolation Hospital, the stables of his ambulance being at the back of the Morgue.

The west side of the building on this floor is devoted in front to an identification room, and at the back to a post-mortem room; between these two rooms there is a cold storage plant, with receptacles that may be pulled out into either of these two rooms. A body arriving at the Morgue is taken into the post-mortem room, one of the receptacles is pulled out into this room and the body laid upon it, the receptacle being pushed back into the cold storage portion. If anyone wishes to see a body for the purposes of identification they go into the front of the building and the body is drawn out of the opposite end of the cold storage plant and is shown to them in the identification room. In this way all bodies going to the Morgue will be preserved in cold air, and the public will be prevented from satisfying their morbid curiosity, as in the identificaton room all they can see, unless they have an order to see a certain body, is what looks like one tremendous filing system.

The coroner's court room is upstairs, and is a large and handsome room, very well lit, with a dais at the east end and a private room off it for the coroner's use. There are also rooms for witnesses, jurors and counsel.

The whole building is finished in quarter-cut oak, well heated by hot water system, and well lit by large windows for the day time, and gas and electric light at night.

This building is now open for use, and must be used as much as possible for all inquests.

When the old building became unfit for use the coroners were for a time allowed to hold inquests in the old Police Court. When the City Hall was built the old Police Court was dismantled, and

a deputation of coroners waited upon the City Council and asked permission to hold their inquests in the Police Court in the new City Hall. This was granted, as they understood it, until the old Police Court was repaired and made into a coroners' court. This arrangement was very satisfactory to the coroners, but in a short time they discovered that the resolution was that they should have the use of the Police Court in the City of Toronto until the alterations to No. 1 Station were completed; when these were finished the coroners found themselves without any place to hold an inquest, as nothing had been done to the old Police Court. Finding so much difficulty in procuring a decent and safe place in which to hold an inquest, they laid the matter before the Attorney-General's Department, the result being that an Act was passed compelling all municipalities to provide a coroners' court, and in any municipality where such court was not provided the coroner should have the right to use the Police Court of that municipality or hire any place at the expense of the municipality for the purpose of holding an inquest.

This brought matters to a focus, and the City Council voted $25,000 for the erection of a Morgue.

This occurred five or six years ago; but the coroners have not been worrying about it, because, as soon as this Act was passed, they had a right to hold their inquests in the Police Court in the City Hall Buildings. This right, of course, has now expired: no more inquests can be held in the Police Court, at least without special permission from the City Council, as a proper coroners' court, with a morgue, etc., etc., has been built and is now at their disposal.

A CASE OF EXOPHTHALMOS IN THE NEW-BORN CHILD.

BY JAMES M. MacCALLUM, M.D.,
Oculist to Toronto General Hospital; Oculist to Victoria Hospital for Sick Children.

In July, 1905, there was referred to me from the Burnside Lying-in Hospital a baby of one week in whom exophthalmos of the left eye had developed immediately after birth. The forceps had been applied to the head. The proptosis had increased in spite of the application of a pressure bandage, until when seen by me the eye was practically extruded from the socket, the cornea opaque and threatening to slough.

With the help of Dr. Starr and of Dr. S. Johnson, who gave the anesthetic, the child was at once operated upon. An incision was made between the external and the superior rectus, through the conjunctiva and orbital fat, exposing a bluish mass underneath the periosteum. This was incised, giving escape to a large mass of clotted blood. The finger introduced discovered a small linear fracture in the roof of the orbit. The exophthalmos at once disappeared. The wound was closed and the eye bandaged up. The opacity gradually cleared up under the use of Dionin in 5 per cent. solution, and the child was discharged in a month.

In view of the frequency of the application of obstetrical forceps to the head injuries to the eye are surprisingly rare. They vary from a scratch of the cornea to an exophthalmos, or even complete avulsion of the eye. Naturally, these injuries receive but scant consideration in the ordinary text-books on obstetrics. The best account of them is probably that given by Bruno Wolff in the Festschrift of Professor Hirschberg, 1905, which has been translated into the *Ophthalmoscope*.

The venous obstruction of normal parturition often leads to retinal, sometimes to even sub-conjunctival, hemorrhages, which latter might possibly be enough to cause slight exophthalmos. Post-mortem records show that an exophthalmos showing itself at birth or shortly after, increasing in severity day by day, is usually due to hemorrhage, and the hemorrhage due to fracture of the orbit.

Wolff, in a table of 112 cases of trauma to the eye during birth, gives 12 of exophthalmos of varying degree. Such cases are then sufficiently rare to merit record, especially when the outcome was so happy as in this.

CANCER OF THE BREAST; ITS TREATMENT AND THE SCIENTIFIC GROUNDS UPON WHICH THE SURGICAL TREATMENT IS BASED.

In the fourth William Mitchell Banks Memorial Lecture, delivered November 3rd, 1908, and reported in the *British Medical Journal*, this subject was taken up and discussed most interestingly by Henry Morris, President of the Royal College of Surgeons of England.

Many Canadian surgeons will recall with pleasure the visit of Sir William Banks to the Montreal meeting of the British Medical Association and the brilliant address on surgery which he then delivered. A still larger number knew of him as standing for all that was best in the surgery of the Mother Country.

The credit justly his due for the large share that was his in the evolution of our present methods of treating mammary cancer has been too long delayed. To no one more fittingly than to Henry Morris could the task of calling attention to this have fallen. How well this pleasant duty has been performed can be judged by a part of the address which follows:

"The modern history of the operative treatment of cancer of the breast and of Banks' connection with it is very noteworthy, as it affords an excellent opportunity of studying the working of different philosophic methods in medical science, and I will therefore briefly recall it. From the first, with commendable candor, he explained that his views were in large part due to the paper by Charles Moore, published in the year 1867. Moore and his colleagues, especially Campbell de Morgan, were propounders of the theory of the local origin of cancer, and to them the sufferers from cancer are indebted for the advocacy and practice of extensive removal at an early stage of the disease.

"Banks wrote:

" 'In 1867, Moore of the Middlesex Hospital, whose experience in that institution was great, wrote what is now an almost historic paper on "Inadequate Operations in Cancer," which set a great many minds thinking, inasmuch as it was a revolt against constituted authority. It made me think, too, so that I became deeply interested in the question.'

"Like Banks, Christopher Heath also tells in a clinical lecture,

published in 1871, that it was Moore's paper which led him to perform as a routine practice much more extensive operations for mammary cancer than had been customary with surgeons previously. And amongst English-speaking surgeons Samuel Gross, of Philadelphia, made a notable move in 1880 in favor of the free removal of breast cancers, and pushed the cause with earnestness and enthusiasm. Gross also ascribed his own movement to the teaching contained in Moore's article, and which he alluded to as *'a remarkable paper.'* And Gross was quite right, for Moore's paper is a very thoughtful and philosophical treatise, and an admirable example of a shrewd and correct induction from clinical experience leading to a most important improvement in surgical treatment.

"It should be read by those extremists in our profession who think no progress in knowledge concerning medicine, surgery, or the ancillary sciences can be made except by experiments on animals; and who by their exaggerated language, and by ignoring or denying the many discoveries which have been made by careful observers at the bedside and in the *post-mortem* room, conduce to and increase the bitter resentment and hostility against all who practise these knowledge-giving and necessary experiments.

"Moore proved by induction the correctness of the theory of the local origin of cancer. His conclusions and reasons are entirely in conformity with recent investigations on the minute anatomy and pathology of the lymphatics. He first briefly described the other chief theories of the origin of cancer, namely, the (1) constitutional, (2) textural or organic, and (3) the regional. The question as to which of these several theories is correct, Moore stated, can only be decided by accurate and repeated observations of the mode of recurrence. He pointed out that there are two elements of uncertainty in the question: uncertainty, namely, whether all the area invaded by the primary disease was removed by the operation; and the uncertainty respecting the possible duration of the *inactive* life in a fragment of cancer, severed in the operation from the primary tumor, and left in the tissues.

"If from a series of operations an imputation upon their completeness is justified, then, so far as those cases go, it is superfluous, he thought, to invoke either the constitutional, the textural or the regional theory. He stated his opinion that the difficulties of completely extirpating cancer are much underrated by those who hesitate to suspect the perfectness of their operations; that there is too often reason, without calling in the evidence of the microscope, to expect the return of the disease.

"His directions for operative treatment were that not only the whole mamma, but skin, lymphatics, fat, and when the disease even approaches the pectoral muscle, part of that muscle, too, should be

taken away. The axillary glands, when diseased, should be cleared away in one mass with the breast, without dividing the intervening lymphatics. The flaps of skin should be undercut, so as to remove any undetected prolongations of the disease, and chloride of zinc should be applied to parts not capable of being removed.

"With reference to the spreading of cancer, he said:

" 'Its continuity with the first tumor was traceable over half the chest, the pleura, and the glands from the neck to the groin, or the inguinal region, and possibly also to the liver.' How possible, the interesting and important investigations of Sampson Handley have made very clear.

"The reading of Moore's paper stirred Banks to adopt the routine removal of the whole of the fatty and lymphatic contents of the axilla, and of the skin covering the mammary gland, as well as very wide resection of the fascia connected with the muscles upon which the mammary gland rests. He arrived at his own conclusions through witnessing many imperfect operations, and by observing the frequency of early recurrences, and the situations and tissues in which these recurrences appeared. He brought no fresh microscopical, anatomical, physiological, or chemical information to bear; but his conviction as to what the proper operative treatment should be was entirely an induction from clinical experience.

"And he was induced to adopt this important change in practice because of the greater immunity from recurrent disease which he expected from it, and quite apart from the advances in aseptic and antiseptic surgery, although, happily, these advances gave courage to surgeons in the performance of the more extensive operations.

"Banks read his first paper, which he styled 'A Plea for the More Free Removal of Cancerous Growths,' before the Lancashire and Cheshire Branch of the British Medical Association in 1877, and in it he suggestively asked, 'Have you ever imagined what the results would be if all cancers were thoroughly excised when they were no bigger than peas?' His next paper was published in 1883, and was read at Worcester and also at the Liverpool Medical Institution in the same year. He gave it the title, 'Free Removal of Mammary Cancer, with Extirpation of the Axillary Glands as a Necessary Accompaniment.'

"Four years later, in 1887, he brought the same subject before the Harveian Society of London, and reported the results of 82 operations.

"In 1900 he delivered the Lettsomian Lectures on 'Practical Observations on Cancer of the Breast,' and published the analyses of his results in 213 cases of operation.

"The meeting of the Harveian Society listened to his paper

without endorsing his views. Prominent London surgeons questioned whether the completed operation recommended by Banks and Gross afforded better results than the incomplete. One very distinguished surgeon among them thought that patients lived longest who had never been operated upon, and that it was a question for consideration *whether a local excretion of cancer did not render patients less liable to constitutional disease.*

"Banks was very much cast down, he tells us, after this debate, but he returned to Liverpool resolved on continuing what he felt sure was the right line of treatment, but which he had so unsuccessfully come to London to advocate. He would, of course, listen to no argument in favor of a return on his part to the dangerous treatment, as he had learnt to know it to be, of excising the cancer tumor and leaving behind a remnant of the breast.

"But the opposition to wide operations did not end with the discussion at the meeting of the Harveian Society. It was followed up in a work published shortly afterwards, in which the practice of removing the whole breast as a routine operation for mammary cancer was condemned; as also was the removal of glands which are not felt to be enlarged through the external textures; and disapproval was expressed of Kocher's operation for removal of the tongue.

"It was considered that evidence pointed to the fact that large and sweeping operations which include not merely the free removal of the primary disease, but the dissection of the glands—whether in cases of tongue, vulva, penis, lower lip, or breast—were successful, not because the surrounding tissues were widely removed and the lymphatic ducts and glands taken away, but because the operations were practised in favorable cases.

"If we seek for the reason why the wide operations proposed by Moore, and urged by Mitchell Banks and Gross, were opposed by able and experienced London surgeons, it is to be found in the difference in the philosophic views as to the origin of cancer held by those who proposed and those who opposed them. Whilst Moore and his school regarded cancer as being at first a local disease; the others held the view that cancer is primarily a blood or constitutional affection.

"And if a blood disease from the outset, what was there to hope from these extensive removals of tissues? How could the excision of a local tumor eradicate a malady of the whole system? How could recurrence be prevented until the whole constitution was cured of its pernicious tendency? Hence it was thought to be 'a question for consideration whether a local excretion of cancer did not render patients less liable to constitutional disease'! I again quote these words because they give so emphatically the

stamp and motto of the blood theory of the origin of cancer, to the opposition against extensive excision of local cancer.

"But between this debate at the Harveian Society and the delivery by Banks of the Lettsomian Lectures in 1900 a good deal of water had ebbed and flowed at the mouth of the Mersey, and other barks had floated on the tide, carrying even larger sails than any that had been in view before.

"It was now Banks' turn to cry, 'Hold! Enough!' Not only had the constitutional theory of the origin of cancer receded before the strong and widely-rolling wave which placed the microbic theory for many consecutive years in the foreground, but in 1889 and 1892 papers which made considerable additions to our knowledge of the minute anatomy of the lymphatics of the breast and pectoral fascia were published by Heidenhain in Langenbeck's *Archiv,* Vol. 39 (1889), and by Harold Stiles in the *Edinburgh Medical Journal* in 1892 respectively. Both Heidenhain and Stiles agreed in believing that the entire mammary gland is not removed by the operations which had been usually practised, a fact about which anatomists, being also surgeons, who had witnessed operations for breast cancer some years ago, must have been quite sure.

"Both Heidenhain and Stiles gave expression also to their views as to the mode of extension, and the causes of local recurrence of cancer after amputation of the breast.

"In 1894 Halsted, of Baltimore, influenced by the work of Heidenhain and Stiles—twenty-seven years after the publication of Moore's paper and seventeen years after the first paper by Banks—published the results of some very extensive resections which he had been led to perform, and gave a description of the steps of his operation illustrated by plates. The consequence was that a revision of the practice of performing limited operations was deemed to be necessary by those who had previously resisted the more extensive excisions. Thus a reform which had failed to be effected *by the correct induction from clinical and pathological observations of Moore, De Morgan and Banks, and others,* was brought about by the practice of Halsted, based as it was on a deduction both premises of which were imperfect—namely, that the disease spreads in the course of the lymphatic current and by an embolic process.

"Although Heidenhain had not altogether overlooked the process of permeation and the tendril-like growth of lines of cancer cells along the fine lymphatic vessels, he had failed to appreciate its significance as the principal agent in dissemination. It was left for Sampson Handley, now a successor of Moore and De Morgan on the staff of the Middlesex Hospital, to find out, in the course of his investigations during the last three or four years in the cancer research laboratory of that hospital, that permeation—or, in

other words, the growth of the cancer cells in the lumen of the fine lymphatics—takes place almost as easily against as with the lymph stream, and extends centrifugally from the primary tumor, in an ever-widening circle and in the plane of the principal lymphatic plexus—that is to say, along the deep fascia.

"'According to the embolic theory' of Heidenhain and Stiles, 'which four years ago met with general acceptance, the force of the blood and lymph streams was the principal agent in dissemination, the cancer cells themselves being so much driftwood' (Sampson Handley).

"Halsted's operation was based on the embolic theory, and Halsted's operation, based on this theory, was what converted the opponents of Banks. It is intelligible how an operation based on an erroneous theory can be at once too extensive and too limited, and this is the case with the method of Halsted.

"Moore had written: 'It must be considered that operations are not adequate merely because they have been large'; and Handley points out that an operation may be very extensive and yet futile if it is based upon false pathological premises. Handley's careful investigations have shown that the very extensive removal of skin practised in the Halsted operation is unnecessary; and, on the other hand, that a sufficiently wide removal of the deep fascia, and the requisite undermining of the skin flaps form no part of Halsted's technique.

"And, in regard to the removal of muscle, Handley does not consider it dangerous to leave the uppermost part of the great pectoral, provided it be well retracted upwards, while the costo-coracoid membrane and the subclavian glands are being removed. The removal of the pectoralis minor, he thinks, is a mere matter of convenience to the operator; but as the serratus magnus is a far greater source of danger, he advises that at least a superficial layer of this muscle should be taken away, and in advanced cases the removal of the whole thickness of it together with the overlying breast is requisite. This teaching, based on microscopical pathology, is almost identical with that put forward by Moore and Banks on clinical grounds.

"In the course of the thirty-three years since Moore wrote, the surgical pendulum had swung from one extreme to the other, and in so doing Banks thought it had got somewhat off the line. And so in his Lettsomian Lectures he, with the courtesy which softens controversy, but with the candor and straightforwardness which command respect, commented on the work which had lately been done by others. He desired to dissent absolutely from Dr. Halsted's view that the entire pectoralis major needs to be removed, that the pectoralis minor should be divided, and that the supraclavicular region should be invariably cleared out. He refused to

recognize that the rule ought to be 'operate on the neck in every case,' and he opposed to that apothegm his own experience to the effect 'that when cancer has laid hold of the supra-clavicular glands it has got such a grip as to be past extirpation.'' Banks supported his views by his operative results, which, though equalled, have not been surpassed by others.

''It is evident, reading between the lines, that Banks was smarting under a sense of wrong done to him, for he says:

'' 'In justice to myself, and to the memory of my late friend Gross, I think it rather hard that a certain group of surgeons should date the origin of the modern operative treatment of cancer from the microscopic researches of Heidenhain and Stiles, and the labors of Halsted and themselves.'

''If this opinion be not now unanimously held by surgeons, I cannot doubt that it will be by posterity, who will be able to take a dispassionate view of the history of the treatment of mammary cancer from the date of Moore's paper in 1867 to Banks' Lettsomian Lectures in 1900.

''Perhaps Banks was too optimistic if he expected to be a prophet in his own land and among his own people. For it has not infrequently been noticed that if a suggestion come from across the seas, and especially if it be made in Germany, it is much more likely 'to catch on' than if it emanates from one of our own people.

''But I have the satisfaction of referring to one of his English commentators, at least, who takes a fair and correct view of Banks' rightful claims.

''Jacobson, in *The Operations of Surgery,* says:

'' 'The tendency nowadays to talk and write as if the origin of the modern operative treatment of cancer of the breast dated to the labors of Heidenhain, Stiles and Halsted, ignores most unfairly the work of others who should not be forgotten. And one name at least—that of an English surgeon—rises pre-eminently as a worker in this field. I refer to Sir W. M. Banks. For twenty-three years this surgeon, with unfailing earnestness and characteristic vigor and terseness of expression, has in many places urged the need of more extensive operations in this disease.' And then Jacobson adds: 'If honor is to be given where it is due, a fair share of it must justly fall to him.'

''I have neither time nor intention to introduce a description of what my own practice has been, and is, in the surgical treatment of breast cancer. As a member of the staff of the Middlesex Hospital, I followed Moore and De Morgan; but I should like to mention that for many years I have been in the habit of removing the fascia over the serratus magnus, and often a layer, and on occasions, in places, the whole thickness of the muscle; and that as a teacher at my hospital and an examiner at the University of

London and the Royal Colleges, I was in the habit of pointing out to the students and candidates that a good half of the mammary gland was in contact with the serratus magnus, and only the rest with the pectoralis major; whereas their answers to questions led one to believe that the general impression they had got was that the mamma rested entirely on the great pectoral muscle.

"I think that too much importance is just now being attached to clearing the axilla from the apex downwards, instead of from the base upwards. The essential precaution is to avoid cutting across the lymphatics or leaving behind any glands or fatty tissue.

"Nor do I believe in the danger of making a direct cut into, or even of removing a slice from, a cancer tumor, for the purpose of diagnosis, before the operation is commenced, provided the wound is stuffed with a little aseptic gauze and covered with collodion previous to proceeding with the excision, and the knife used for the incision is laid aside. The danger lies in inadvertently dividing affected infiltrated tissues, which was so frequently done in the days of inadequate operative measures." N. A. P.

INAUGURAL SYMPTOMS.

In an address on "Inaugural Symptoms" in the *British Medical Journal* of November 28th, 1908, Moynihan points out that, owing to the stress laid upon post-mortem findings, undue value has been laid upon the late symptoms of certain conditions. He contends that "Late symptoms are no more characteristic of any disorder than early ones, and their importance as signals for early therapeutic aid is relatively insignificant." "Late symptoms are too often the heralds of death; inaugural symptoms may be the cry for timely surgical interference."

It is for the surgeon then, during an operation, to note any early pathological changes and then to re-cross-examine his patient and to elicit the early symptoms of these early pathological changes. It is depressing to the surgeon to have referred to him cases of carcinoma when the possibility of complete relief has long passed.

"That cancer of the stomach is a common malady we know well enough; it claims an appalling number of victims every year. It is a disease which is purely local in its early stage, a disease which, accordingly, lends itself readily enough to radical treatment. Yet it is probably safe to say that there are not in all England ten patients who have been cured of this dire complaint. The tale of the victims of appendicitis is told almost daily in the newspapers. If the early symptoms of this disease are commonly understood and appropriate treatment adopted from the first (not

necessarily operative treatment), the terrible mortality would be very considerably reduced. I think that it is almost certain that the acute fulminating cases (so-called) of this disease give always a definite warning of their approach; it is our ignorance of this warning that proves so disastrous. How does it come about, then, that we are so pitifully helpless in these and in many other like diseases? It is, I venture to say confidently, because we rely for our diagnosis not upon inaugural symptoms, but upon those of late appearance; we confuse far too frequently the symptoms of a tardy complication with those of the original morbid process itself. We hesitate to diagnose cancer of the stomach before a lump can be felt, and we have not the courage, in a case of reasonable doubt, to open the abdomen to look. We question the evidence of duodenal ulcer until hemorrhage occurs, though hemorrhage is a late, dangerous, and preventable manifestation. We dare not hint the presence of gall stones until jaundice comes, though symptoms of the plainest meaning have been present for years, and in spite of the fact that jaundice is an infrequent symptom of gall stone disease. Indeed, much of the text-book symptomatology urgently demands revision. It is based upon diagnoses made in the advanced or terminal stages and verified upon the dead. Our knowledge now of the 'pathology of the living' must urge us to scrutinize the early history more closely and to endeavor to correlate the inaugural disturbances of health with the morbid conditions responsible therefor, which are laid bare by operation.

"I think there is a fault of which we are all in greater or less measure guilty—we are very apt to ignore or belittle the history of the case from the patient's point of view, the anamnesis that is. The word 'anamnesis' is one the significance and usefulness of which seems to be insufficiently appreciated. It means the calling again to mind incidents in the past, the recollection of occurrences almost or entirely forgotten until thought was concentrated thereon. Its meaning in medicine accordingly should be the reproduction in the patient's mind of the details of the earliest clinical history. The 'previous history,' as it is generally told in published case reports, is a jumble of the statements of the patient and of the prejudices, opinions, and reflections of the recorder. It is time that the word 'anamnesis' came into general adoption, and that it should be held strictly to indicate the recollection by the patient of the details of his illness—that, neither more nor less. The anamnesis cannot be too detailed, for it affords the only authentic information which can be obtained, and when it is reviewed in the light of the fuller knowledge which has come to the surgeon after the exposure and careful, purposeful scrutiny of the parts involved, we should little by little become confident in making our diagnosis at a much earlier period than now seems custom-

ary or possible. A plan which I frequently follow is to ask the patient to write for me in the most detailed manner the story of his own sufferings from the time of their very earliest onset, exaggerating nothing, omitting nothing because of its irrelevance or apparent triviality. Many little points may be brought out in this way, points which are apt to escape one's notice when the examinations are being made."

"It is dealing with the acute catastrophes occurring within the abdomen that we shall probably derive the most instant and striking advantage from an attentive study of inaugural symptoms. It is in these cases that minutes gained mean lives saved; for the earlier the gravity of the case is realized and surgical treatment adopted the safer will the issue be. Other things being equal, the mortality rises in direct proportion to the time which has passed since the disaster occurred. Many of the symptoms and signs formerly described as attendant upon the perforation of a hollow viscus are not manifestations of that particular incident at all, but are evidences of a later and preventable complication, acute diffuse peritonitis. To take a specific example, the perforation of a gastric or duodenal ulcer. But let me first say that a catastrophe of this kind is almost always capable of being forestalled. Though the onset of perforation in an ulcer is acute, the ulcer itself is of the chronic type. It is an ulcer that has existed for months, or years, and it has given, in almost every instance, not only sustained evidence of its existence, but a recent warning that the pathological processes engaged in it were becoming more acute. The warning, however, is commonly ignored, because the significance and importance of it are not understood, and, accordingly, a disaster is precipitated. There are few catastrophes occurring within the abdomen that are veritably 'acute.' When we speak of such things, we refer, as a rule, to the abrupt incursion of acute symptoms into the even and placid course of a disorder whose more tranquil manifestations have been present for months, or it may even be for years.

"If the physician depends upon text-book symptoms for his diagnosis of perforation of an abdominal viscus the patient's life would be in jeopardy before surgical relief is sought. Let him rather note the sudden onset of an acute, intolerable pain that does not abate, rigidity of all the abdominal muscles, light and shallow breathing, with an inspiratory phase that often ends abruptly in a 'catch,' together with the intensely anxious expression which the face always wears—are ample warrant for a diagnosis of a perforation. A previous history of indigestion is rarely, if ever, lacking. A rapid pulse-rate, vomiting, abdominal distention are not to be looked for among the inaugural symptoms. They are the proof that

precious time has already been wasted and a valuable opportunity thrown away."

He then briefly discusses duodenal ulcer and tells us of the absurd frequency with which this condition is confused with such terms as "hyperchlorhydria," "acid dyspepsia" and "nervous dyspepsia." The physician, unfortunately, waits for terminal symptoms such as hemorrhage while valuable time is being lost. Some readers will remember that W. J. Mayo has facetiously remarked, "That most cases of duodenal ulcer give a history of having been *cured* of dyspepsia at least nine times"!

The text-books in medicine then come in for severe criticism in that they invariably describe late symptoms of gall stones and overlook entirely, "The fulness, weight, distention or oppression in the epigastrium coming soon after meals, usually within half or three-quarters of an hour, relieved by belching, elicited with remarkable constancy by certain articles of diet, and dependent rather upon the quality than upon the quantity of the food. There is a sensation of great tightness, which, if unrelieved, may become acute pain, from which the patient obtains ease by bending the body forwards, by flexing the right thigh on the abdomen, or by loosening all garments which fit tightly to the waist. While the discomfort lasts the patient may notice a 'catch' in his breath, and he finds, perhaps, that it is impossible to breathe deeply without feeling an acute stabbing pain at the right costal margin. There may be a feeling of faintness and nausea, and, rarely, vomiting may occur spontaneously. After a more than usually severe attack of 'indigestion' the body and side may feel stiff for several days. A frequent and very characteristic early symptom of cholelithiasis is the occurrence during an attack of indigestion of a slight sensation of chilliness, especially in the evenings after a meal. The patient may shiver for several minutes, and may hasten from the table to huddle over a fire. The sensation of 'goose flesh' is often experienced, and several medical men upon whom I have operated said that in the severer phases it was not unlike a very slight rigor, the chilly stage being quickly followed by one in which the body feels hot, and the skin begins to act freely. To quote from Naunyn, 'On an average, every tenth human being has gall stones, and of elderly women perhaps every fourth.' "

As regards malignant disease of the stomach, he thinks that from his own experience rather more than 60 per cent. have been preceded by gastric ulcer.

Of cancer of the stomach he describes two types, "pyloric," the symptoms of which are obstruction from the beginning, and "prepyloric," in which the symptoms individually are vague, "but collectively enable a certain diagnosis to be made. A man beyond middle

life finds by degrees that he takes less interest in his meals; his food loses its relish, and presently becomes distasteful. Life in many of its aspects seems to lose its zest; neither work nor leisure are enjoyed, and depression, increasing anemia, and loss of weight are soon observed. It is not for many weeks, or perhaps many months, that vomiting is noticed; it is then due to the gradual enlargement of a growth which, beginning on the lesser curvature of the stomach, spreads downwards, on one or both surfaces, until it attains such size that the pyloric antrum becomes narrowed, and obstruction results. In several of my cases hemorrhage has been the first symptom. The sudden occurrence of hematemesis in a man previously in good health is to be looked upon as especially significant. We should have our suspicions keenly aroused if, in a patient at or beyond middle life, whose anamnesis tells of the existence at some earlier time of a chronic gastric ulcer, there develop distaste for food, loss of appetite, intolerance and positive refusal of solid food, uneasiness after meals, even the restricted ones taken unwillingly, loss of weight, persisting anemia, and vomiting or hematemesis. Then exploration should be urged, for in the present state of our knowledge of the early symptoms there is no other method by which an early carcinoma of the stomach can be discovered. No one deprecates more strongly than I the haphazard exploration of the abdomen for diagnostic purposes. I think the most sedulous care should be expended on the examination of the patient, and that every detail of the anamnesis should be scrutinized before the abdomen is opened, otherwise we may let slip great opportunities for clinical research." He deplores the continued medical treatment of these cases, the only possible remedy for the condition being surgical intervention.

Then in cancer of the large intestine, while one's attention is often attracted by a sudden and complete obstruction, yet one knows that such must be a later manifestation; upon inquiry one will find that there has been an "Insidious onset of intestinal irregularity. The bowel acts with a certain caprice; there is now slight constipation and now slight diarrhea. These symptoms become, of course, considerably emphasized at a later stage, where there may be intestinal obstruction of three or four days' duration, alternating with a copious and teasing diarrhea. But something much less than this occurs quite early in the disease, and at the same time there is present a symptom which I hold to be of great significance. It is the occurrence of a spasm, slight and transient, in a part of the large intestine. The patient tells us that every now and then there is a feeling of 'gripping' (or he may himself use the word 'spasm') in a certain very limited area of the abdomen, and he points always to the same spot. This is clearly to be explained by the existence of a slight hypertrophy of the

intestinal muscle as a result of the increased effort necessary to pass the contents of the gut through a segment in which stenosis is already beginning to appear." In addition, mucus or occult blood may occur early.

"When, therefore, any or all of these several points are elicited in a patient of middle age or over, and when loss of weight, indifference to food, or positive repugnance to it, or the deliberate avoidance of the more substantial meats, are together observed, there is every probability that serious organic disease is present in the large intestine."

He gives credit to the appendix for having a more varied set of inaugural symptoms than any other abdominal organ. In all cases, however, he lays great stress upon the presence of the initial pain. In this paper, however, he says nothing about the *referred pain* that so often leads the practitioner, unless always on the alert, into serious difficulty.

As to the pancreas, he tells us very frankly that as yet we know but little of the inaugural symptoms. He, however, lays great emphasis upon the value of Gammidge's tests of the urine and feces, as a positive method of determining the presence of a morbid condition of that organ. This is comforting, in view of the positive assurance of some pathologists that these tests are not worth doing.

F. N. G. S.

ASCITES IN TYPHOID FEVER.*

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Professor of Medicine in the University of Tor nto, Toronto, Canada.

Peritoneal effusion in typhoid fever, apart from peritonitis, must be of rare occurrence, as there is no reference to it in the literature on the subject. During the last three years six cases presenting signs of such effusion have come under my observation. In all of them the effusion occurred during the course of the illness, persisted for about ten days or two weeks, and disappeared in all but one with convalescence. In all the cases the illness was severe, but in none were there hemorrhages or symptoms of peritonitis, except in one case.

CASE I.—The most marked case was that of a woman, aged thirty years, who was married, had two children, and came from the foothills of the Rocky Mountains in October, 1907. On her arrival she was very ill, her temperature being 104° F. She had severe bronchitis, with loud rales of great variety and some wheezing in all parts of the chest. She had a history of asthmatic attacks extending over some years. The sputum was frothy and copious, but contained no spirils or eosinophiles, nor was the dyspnea paroxysmal. After a few days it became evident that she was suffering from typhoid fever, all the usual symptoms of which were presented later—the rose-colored spots, enlarged spleen, leukopenia, Widal reaction, low blood pressure, etc. The abdomen was not at any time distended, but remained relaxed throughout. The course of the disease was severe and protracted, but otherwise uneventful. She showed marked prostration. In the third week after she was first seen both flanks became full and fluctuating in the dorsal position. The note to light percussion was flat to the mammillary line; on deeper percussion there was slight tympany of an amphoric character. Fluctuation was easily demonstrated. When turned on her side the upper flank became concave and somewhat tympanitic; the dependent one full and rounded with fluctuation and flatness well marked to the parasternal line. That these signs were not due to fluid feces in the colon was shown by the fact that no alteration

*Read at a meeting of the Association of American Physicians, Washington, D.C., May 12 and 13, 1908.

in them resulted from the action of a copious enema. A purgative was then given; it acted freely but without affecting the signs of free fluid effusion. The quantity of fluid varied, diminishing somewhat on one or two occasions, and then increasing again, until toward the end, when it gradually lessened and disappeared, leaving the flanks retracted. At the same time the temperature became normal, and convalescence was soon established.

Case II.—A laborer, aged twenty-two years, with good personal and family histories, was admitted to the hospital September 22, 1905. He said he had had typhoid fever during the preceding year. However, the symptoms of the present attack were quite marked: the usual temperature, some diarrhea, moderate abdominal distention, rash on the chest and abdomen, enlarged spleen, leukocytes as low as 4500, and wellmarked Widal reaction. The illness was protracted, there being apparently a series of intercurrent relapses. The signs of fluid in the peritoneal cavity became apparent October 23, in the beginning of the fifth week, and were quite marked until December 6, after which they gradually abated, and were not evident ten days later. The abdomen was quite relaxed throughout the illness, and was not tender on deep palpation. His convalescence was satisfactory, and he left the hospital in good condition. The sputum was scanty, but in such as there was obtained no tubercle bacilli were found on repeated examinations.

Case III.—A man, aged thirty-five years, a clerk, was in the hospital at the same time as Case II. On admission the abdomen was tympanitic in all parts, including the flanks. The rash was profuse and widespread. Two days after admission the flanks were found full, flat on percussion to the mammillary line, and with fluctuation quite distinct. The signs of effusion lasted over three weeks and disappeared with convalescence. His recovery was satisfactory.

Case IV.—A young man, entered the hospital in January, 1908; the symptoms of typhoid fever were well marked. About the end of the second week of illness signs of moderate peritoneal effusion developed, persisted for two weeks, and then disappeared rather rapidly. The ophthalmotuberculin test was made without any reaction following. After the temperature had been normal three days pleuritis of the left side began, with much pain and moderate fever. The exudate was fairly free, although no fluid was obtained by the aspirating syringe. To determine whether it was due to tuberculous infection, a further test was made with old tuberculin subcutaneously. No reaction resulted.

Case V.—The patient was a girl, aged fifteen years, whom I saw but once, in consultation with her physician, in the second or third week of her illness. There was a large quantity of fluid in the peritoneal cavity; the signs were first observed on the preceding day,

although the effusion had probably been present for some time. The illness was severe, the temperature being over 104° F. There was no pain or tenderness in the abdomen; its walls were not rigid. Her physician informed me that signs of fluid disappeared a few days later, the patient making a good recovery.

CASE VI.—In this case the effusion was probably due to tuberculous peritonitis. A man, aged twenty-three years, was admitted to the hospital September 24, 1907, with a temperature of 101.8° F.; pulse, 80. He was employed washing in a garage and a fellow worker occupied the next bed, having taken ill at the same time. The symptoms of typhoid fever were well defined in both cases, and the disease ran a rather severe course. In the fourth week there occurred phlebitis of the left saphenous vein, with marked chills, the temperature rising to 108.4° F. after the first chill. A few days later there were signs of some exudate into, first, the left, and then the right pleura. Two weeks later, and seven weeks after admission, there were well-defined signs of peritoneal effusion, the quantity being greater than in any of the preceding cases. The abdominal wall was rather rigid and somewhat tender to firm pressure. The temperature was slightly, but irregularly, elevated, and the leukocytes, which had been below 5,000, rose to 12,000. A tuberculin test was made; there was no reaction to 0.5 milligram given subcutaneously, but 2 milligrams caused a well-marked reaction. Later, there was marked reaction to the ophthalmotuberculin test. His general condition improved, although the peritoneal exudate persisted. He left the hospital January 21, 1908, in good condition, but with a considerable quantity of fluid still in the abdominal cavity.

In at least four of these six cases the effusion, so far as can be determined, was due to pathological conditions resulting from typhoid infection. The immediate cause of the effusion is uncertain. The disease was severe and attended by much prostration. The abdomen was very relaxed and the contents therefore had little support, so that the vessels would easily dilate, permitting considerable stasis, or at least marked slowing of the current of blood, thus favoring serous exudation. It is possible, also, that the mesenteric glands were greatly enlarged, causing slight but sufficient irritation of the peritoneum to excite effusion.

Toxemia is another possible cause of the effusion. In hepatic cirrhosis something more than simple obstruction to the portal vessels is required to cause ascites. This may be a toxic substance which affects the hepatic cells so as further to obstruct the portal circulation, or which alters the peritoneal epithelium so as to permit a more rapid escape of serous exudate and possibly also cause obstruction of the peritoneal lymphatic vessels, so that the exudat. is less readily removed.

It is probable that in other diseases attended by prostration moderate effusion into the serous cavities may be more frequent than is suspected. Recently in a case of empyema with a bronchial fistula, there were signs of peritoneal effusion for some days during a period of marked prostration and moderate toxemia; they disappeared with the improvement in the general condition. Even in hepatic disease ascites may disappear rapidly, and that, too, without improvement in the patient's general condition. Such was the case in a woman who entered the hospital last winter with marked jaundice and ascites of recent onset. After a few days both the jaundice and ascites rapidly diminished and disappeared, although her general condition was growing worse. She gradually became comatose and died a few days later.

Selected Articles.

IS MEDICATION OF SERVICE IN TUBERCULOSIS?

BY W. H. WALSH,
Ex-chief Sanitary Inspector, etc., Manila.

Medication, as a means of arresting the progress of tubercular disease of the lungs, is regarded with scepticism by many physicians. In view of the disappointment experienced from serum therapy, the intelligent exhibition of remedies is held by others to be of paramount importance in preventing the further invasion of lung tissue by the tubercle bacillus and other micro-organisms.

Pulmonary tuberculosis is a specific inflammation of pulmonary tissue, caused by the implantation of tubercle bacilli, which cause infiltration, caseation, fibrosis, calcification and ulceration.

According to Sajous, "while the bacillus of Koch is the specific agent necessary for the development of pulmonary tuberculosis, one or more of these general and directly predisposing causes must have prepared a suitable soil for bacillus in order that it may become inimical to the patient. In most inflammatory diseases there is hyperleucocytosis, but in tuberculosis there is a diminution, and this may account for the rapid wasting of tuberculous patients."

Healthy pulmonary tissue is not affected by microbic invasion in normal conditions, for micro-organisms are always with us, even in the most sanitary parts of the earth, and a feeble lung can be developed into a normal healthy lung by the practice of deep breathing, superalimentation, pure air, and avoidance of excess of all kinds.

Predisposition rarely exists in infants; it manifests itself later in life, and with a normal chest development and healthy environment, children of tuberculous stock have a good chance to escape.

Dr. B. H. Detwiler, in *American Medicine*, February 25, 1905, states that:

"The fact that tubercle bacilli cannot develop unless there is a properly prepared nidus, eliminates the danger of infection or contagion, and demonstrates that the cause of hereditary tuberculosis is not the direct transmission of the bacillus itself, but a sequel of heredity. The tubercle bacillus is the primary factor, but it does only enough damage to make possible the entrance of more destructive organisms.

"They cannot attack normal tissue, but they are the combined cause of inflammation of these organs and tissues, and often lead to death; or nature may wall in an entire colony and shut them off from healthy tissue by deposits of lime on the outside of the tuberculous mass. Otherwise the pus coccus, by liquefying the tissues, produces toxine, giving rise to chills, fever, sweats, emaciation, and other known results. When the sputum is thin, viscous, evenly distributed with bacillus and a noticeable reduction of corpuscular elements, failing to stain well, the phagocytes show little resistance to invasion of tissue. Those who are so far advanced in this exhausting disease that the outdoor life does not bring them up to the normal leucocytic defense, will require powerful cell tonics.

A suitable soil, therefore, being essential for the development of the tubercle bacillus, resistance to invasion is what we must look for, and this is best accomplished by sunlight, pure air and outdoor life, assisted by tonics and palliative remedial agents to combat symptoms and stimulate active phagocytosis in order to eliminate by this natural process the bacilli and neutralize their toxins.

Dr. Edmund Gros, of Paris, is of opinion that "many, if not all diseases, are due to an impaired equilibrium in the mineral equations of the body.

"Let too great a loss of some of its normal constituents take place, without a corresponding income of these elements in the food, and the tissues lose their vital resistance and are liable to become a prey to microbic diseases. We too often lose sight of these facts, and have too great a tendency to ascribe all diseases to germs alone; yet we can no more surely attack the germ than by modifying the soil on which it grows."

He recommends for this purpose the glycerophosphates, "whcih increase cellular activity, and indirectly stimulate the appetite, regularize and accelerate digestion, and, therefore, may be looked upon as helps toward the only rational means of treating diseases, viz., by stimulating vitality."

Prof. Albert Robin, in his first communication to the French Academy on the subject of the glycerophosphates, stated that "these salts increase the resistance of the organism in pulmonary phthisis and facilitate calcification of the tubercles."

Williams (*Journal of the American Medical Association,* May 12, 1900) claims that:

"In the glycerophosphates we have preparations so nearly identical with the natural phosphorous compound of nerve substances as to be more readily appropriated by depressed nerve tissue than any other phosphorous preparations."

Dr. Bardus (*Comptes Rendus de l'Academie des Sciences,* April, 1900) found the dynamogenic action of the acid glycerophosphates far superior to the neutral in intensity of action and rapid-

ity of absorption. The irregular solubility of the glycerophosphates, and their sometimes apparently weak action, is due to a partial decomposition, which has degraded them into simple phosphates, but it has been found that solution of the "acid" glycerophosphates of lime, soda, potash, manganese, iron and strychnine in glycerine offers the greatest stability and retains all of their active properties.[1]

The logical employment of these glycerophosphates as proplasmic regenerators therefore seems to be established by good authority.

Many so-called antiseptics, such as diatomic phenols (*e.g.*, guaiacol and creosote), eucalyptus, and many essential oils which contain terpines, are found to stimulate the action of the phagocytes and promote the secretion of antitoxins.

This group of so-called leucotactic remedies have long been used empirically, but it is only recently that their indirect antiseptic action has been fully understood. The terpines and other components of many essential oils, as well as creosote and other organic products of this class, have been proved to stimulate a healthy leucocytosis, which increases the number of phagocytes so essential to the defence of the economy from the invasion of the streptococci, staphylococci, and tubercle bacilli.

The first experiments on these lines, showing the effect of the essential oils on the number and vitality of the leucocytes circulating in the blood, were made by Hirt, Binz, and his pupils, Meyer and Grisar, in 1886. The studies of Halle, Marcusson, Koehler, and Bohm, who made blood counts of control animals, were later confirmed and perfected by Winternitz, all of which clearly showed that many natural and synthetic products belonging to the so-called aromatic series in organic chemistry, stimulate an increased leucocytosis of the blood.

Compounds of cinnamic acid, which is a component of some essential oils, have been used hypodermically (Prym, *Munch. Med. Woch.*, No. 44) for this purpose with some measure of success, but there are objections to this method and internal administration of leucotactics is equally efficient, more convenient and rational, although effects are not so rapidly observed.

This explains why symptoms are relieved and the claims made for preparations of creosote, guaiacol, many terpines, balsam of tolu and peru, eucalyptus, etc., have so many advocates.

In prescribing remedies to help the already tuberculous patient we should select those therapeutic agents which increase the potency of the leucocytes, and it is not difficult to select convenient combinations of creosote, eucalyptol, etc., owing to the progress of organic chemistry.

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[1] The glycerolé of the acid glycerophosphates (Huxley) contains all the salts of the glycerophosphates, and in the physiologic proportions found in the human economy (*Gazette du Medecin*, Paris, 1901.)

The disagreeable concomitants of beechwood creosote need no longer deter physicians from using this drug, for its escharotic and toxic properties are avoided when in the form of benzoate, which is only acted on in the duodenum, where it is rapidly absorbed and distributed in the blood-stream. The same benzoic combination is possible with eucalyptol, since it is largely excreted by the respiratory organs, and its soothing effects on the mucous membranes are still retained. When these therapeutic agents, whose prophylactic properties are beyond peradventure, are administered in capsules dissolved in almond oil and in conjunction with such a tonic as glycerophosphate of quinine (as first proposed by Dr. Kugler, of Paris), good results may be looked for.

Practically we do with Kugloids exactly what Wright and Douglas claim to do by raising the opsonic index by injections, *i.e.*, so stimulate and prepare the bacilli that the phagocytes are able to dispose of them, but, instead of doing this by injections, with their dangers and objectionable features, we do so automatically by increasing the natural defensive methods of the body. It is not intended to cast any slur on the great work of Sir Wright and his co-workers, but in the treatment of tuberculosis the opsonic method has not been followed by remarkably good results, and the negative stage or actual lowering of the opsonic index prior to the positive stage is done away with. In spite of modern researches, however, we must still rely very largely on the therapeutic remedies with which we are familiar.

Where it is desired to inhibit the development and assist the natural elimination of micro-organisms by stimulating the protective phagocytes of the blood, the following formula will be found a good one:

R Quinine glycero-phosphate .....½ grain
Creosote benzoate .....½ grain
Eucalyptol benzoate .....½ grain
M. ft. capsulae.
Sig.: "Kugloid."

In febrile and other acute symptoms, the dose is one every hour until they subside, and from six to eight Kugloids can be taken to advantage for months at a time, since they are well tolerated by the stomach.

That the benzoates of creosote and eucalyptol are really taken up in the blood-stream can be proved by an examination of the urine, which gives the usual phenol reaction with any ferric salt as well as by the odor of eucalyptol given off by respiration.

As a prophylactic and palliative, Kugloids, as these capsules are called, after the author of the formula, Dr. Kugler, are also

useful, especially in coryza and the early stages of influenza, in bronchial catarrh, and in all inflammatory conditions of the mucous membranes of the air passages.

The theories concerning the correct treatment of pulmonary tuberculosis change with every decade; it was thought at one time that the Koch tuberculin had settled the question, and before that again it was thought necessary to find a germicide which would directly attack the germs.

The fact is, however, that while all may have some element of the truth, we do not yet know the whole truth, but experience and the investigations which are being carried on in sanitaria prove that medication cannot be altogether ignored; not only for the relief of symptoms, but because administration of such remedies as creosote and eucalyptus, while they cannot act directly on the tubercle and other bacilli, interfere with proliferation of the micro-organisms which give rise to toxins. With hygiene, superalimentation, and appropriate medication, therefore, we can do much for our consumptives, although we have no specific remedy for the disease itself.

Raw eggs and milk (if the patient can tolerate them) have, in the writer's experience, been found to be the best of foods, plenty of both and as often as possible. If raw eggs are not tolerated, they may be given soft boiled.

The symptomatic treatment can generally be controlled with tonics such as the compound syrup acid glycerophosphates (Huxley), Kugloids to stimulate leucotaxis, and, where it is necessary to relieve severe cough, such soothing remedies as tolu syrup, paregoric, or benzo-kinone and heroin, with hypnotics to help sleeplessness.

104 North 19th, Philadelphia.

"MR. DOOLEY" ON PSYCHOTHERAPEUTICS.

Chicago, Oct. 16, 1908.

MR. EDITOR: "Have ye read of this new thing they call sycotherapewticks that's privalint in Boston?" asked Mr. Dooley, as he laid aside the daily paper and turned to Mr. Hennessy.

"No. Is it ketchin'?" demanded Hennessy, anxiously.

"Sure, it's not a disa-ase at all," replied Mr. Dooley in his most professorial manner. "It's a new rimidy."

"Glory be!" exclaimed Mr. Hennessy. "Is it ha-ard ter swally?"

"Faith, it isn't like Father John's midicine or anny iv thim things," went on Mr. Dooley. "It's this way: Boston is a sthate

iv moind, an' whin anny wan sickens there it's th' moind that gits attintion. F'r insthance. whin little Indicutt begins ter pine away an' th' nosepiece iv his specs has ter be thrimmed with fur ter keep th' metal fr'm pressin' on his poor little brain, an' he spinds his nights huntin' th' snark an' ither man-a-a-tein' game in th' heart iv darkest A-africa with Teddy Rosenfelt, thin he's ripe fer syco-therapewticks."

"It's like casther ile, thin?" ventured Mr. Hennessy.

"Ye talk like an omadhaun!" snapped Mr. Dooley, impatiently "It's nawthin' iv the koind. No, they call in th' pasther iv th' church. 'Ah, me little man, it's obsissed ye are,' sez he. 'It's a bad case iv th' dissoshiashun iv th' persona-ality ye have,' sez he, an' be a quick pass iv th' hands he lands little Indicutt inter a sthate iv hipno-osis, which is th' thrade name f'r a kind iv near-slape. In this condition the poor little divil is completely at th' good man's mercy, an' th' secret wurrukin' iv his moind is as clear ter th' pasther as th' spring waters ye see advertised in th' magazines—if ye believe th' advertoisements. In less time than it takes ye ter impty a can iv beer, Hinnissy, th' boy's moind is spiritooly dhry-clinsed iv its obsissions and th' boy comes back ter airth or as near ther as they iver get in Boston. 'Lave him take an exthry coorse in thransindintal ferlosofy,' says th' good man in partin' fr'm th' overjiyed parents. 'It'll kape his attintion off iv himsilf. But be careful how ye expose him ter th' frish air.' "

"It bates th' divil what leps science is makin'!" exclaimed Hennessy, when his powers of speech returned.

"An' they threat th' grown-ups th' silf-same way," went on Mr. Dooley, full of his subject and unmindful of his friend's comment. "Whin wurruk is slac' at th' foundhry and th' father iv th' fam'ly doesn't know where th' price iv th' next pot iv baked beans is comin' fr'm, ter say nawthin' iv th' rint an' th' other lux'ries iv life, he begins ter recognize th' simthims iv a refracthry subconshus—such as cowld feet, an' an inability ter look th' landlord an' th' bo-otcher straight in th' face—an' dhrops in ter th' syeotherapewtick clinic fer afthernoon tea and ither threatmint."

"An' how does that hilp him on th' rint an' th' bo-otcher questions?" asked Mr. Hennessy, critically.

"That's simple," replied Mr. Dooley. "He goes away full of tea, angel cake, an' be-yewtiful sintimints that inable him ter rise above his throubles, and whin th' graspin' landlord an' th' bo-otcher with th' Armour-clad hea-art begin ter do sintry duty before his dhoor in comp'ny with th' ither wolves, th' poor man retires inter th' subcellar iv conshusniss an' puts up th' amnashia shutters, which is a sure protecshun agin painful mim'ries."

"Wunderful! wunderful!" ejaculated Mr. Hennessy.

"Th' same threatmint applies ter all th' ither human ills,"

continued Mr. Dooley. "If th' hear-art gets inter a frolicksome mood and takes ter skippin' beats up an' down th' spine; if th' stummick contrae's th' playful habit iv teleseopin' itself inter th' dhudeenum; if th' rest iv th' organs refuse ter wurruk undher union rules, it's sycotherapewticks that's needed.

"But what does sycotherapewticks ra-ally mane?" asked Hennessy, with a dazed expression.

"That's what no wan seems ter clearly undherstan'," replied Mr. Dooley. "As near as I can make out, it's a spacies iv spiritool flim-flam. We are all born in orig'nal sin, Hinnissy, an' th' divil's in iv'ry wan iv us. Ye may think ter dhrive him out be baptism, but don't fool yersilf. He's still with ye in as manny dif'r'nt forms as ye have fingers an' toes. That's why ye suffer fr'm a mooltiplica-ation iv' th' persona-ality. Whin th' ould boy gets inter yer liver, ye're wan feller, an' whin he sthrikes yer big toe in th' shape iv th' gout ye're another. Ye know yersilf, Hinnissy, that whin ye go home an' swear at th' ould woman an' caress th' childer with th' wooden ind iv the broom, ye're not th' same ja-anial spirit ye are whin ye're sthandin' up ter th' bar an' somewan else is orderin'. It's th' divil that's at th' bottom iv all our sufferin', an' it takes th' pasther an' his sycotherapewticks ter dhrive him out."

"An' are there no more reg'lar doethers in Boston like ould Doc Sullivan here?" asked Hennessy.

"Very few, I hear," replied Mr. Dooley. "Them as haven't made their forehun be thrimmin' off the appendix are now sellin' fairy stories written be spiritool sycollargists."

"But even sthill I don't elearly undherstan' th' meanin' iv sycotherapewticks," protested Hennessy.

"That's just the *crooks* iv th' situashun, as they say in argymints. Ye are in the same box as th' pasthers, Hinnissy."

"An' ye say that Boston is on'y a sthate iv moind?" queried Mr. Hennessy.

"I do," affirmed Mr. Dooley.

"Thin it must be an awful bad sthate ter be in," finished Hennessy, sententiously.

Very throoly yours, J. W. C.

—*Boston Medical and Surgical Journal.*

CONTRIBUTION TO THE USE OF HEART TONICS.

Dr. G. S. Haynes, of the Pharmacological Institute of the University of Cambridge, writes that the galenical preparations of digitalis and strophanthus vary considerably in their action, and continuously undergo changes. It must, therefore, be regarded as a decided advantage that such uniform chemical bodies as digi-

toxin and strophanthin have been placed upon the market. Even minute doses of strophanthin (0.00001 gm.) will show a pronounced action upon the isolated rabbit heart transfused with Ringer-Locke's solution. After intravenous injection, strophanthin will act almost immediately.

Most heart tonics give rise to a peripheral contraction of the vessels, which must be kept in mind in case of arterial disease and rise of blood pressure.

Where digitalis is indicated, but a dilatation of the vessels is desired (as in dilatation of the heart), the drug is preferably combined with purin derivatives (caffeine, theobromine, theophyllin). The most satisfactory member of this group is diuretin (theobromine-sodium and sodium salicylate). It strengthens the apex beat, similar to caffeine.

The coronary vessels will dilate considerably if the isolated rabbit heart be transfused with Ringer-Locke's solution containing diuretin.

By combining a heart tonic with a vaso-dilator, such as diuretin, the heart-beat will become slower and stronger, and the blood will pass more freely through the arteries.

The action of heart tonics upon the vagus is in part overcome by the vasomotor action of diuretin. Diuretin at the same time acts as a heart stimulant. Since it renders the pulse stronger and at the same time dilates the coronary vessels, it is indicated in combination with digitalis, since the greatest disadvantage of the latter drug in the treatment of heart disease is the vaso-constriction which it induces.

Besides dilating the coronary vessels, diuretin will also widen the peripheral arteries, but the blood-pressure will not fall below normal since the heart is more active. The large amount of urine passed after giving diuretin is always secondary to the larger amounts of blood which the kidneys receive. A primary, specific action of diuretin upon the renal epithelium has never been discovered.

The combination of digitalis with diuretin is particularly promising in cases of cardiac hydrops, heart weakness, and in affection of the coronary vessels.

A cumulative action is seen particularly with digitalis and scilla, less so with strophanthus. A cumulative action is hardly to be feared after the intravenous use of strophanthin.—*Folia Therapeutica.*

In Insomnia Due to Habit, and without pain, the administration for a few nights a half-hour before retiring of veronal and trional, of each 5 to 7½ grains, will generally restore sleep balance and break the habit of sleeplessness.—*South. Med. and Surgery.*

USES OF CREOLIN-PEARSON IN CAMPING OUT OR "ROUGHING IT."

"DURING the months of June to September, inclusive, I carried out a series of investigations, at a colony of tents and bungalows at Rockaway Beach, L. I., and used a very large quantity of creolin-Pearson (saponified coal-tar creosote). I wished to test its reported effectiveness as a deodorant and disinfectant, as well as antiseptic, and at the summer encampment many opportunities were presented for its use as an antiseptic in dressing cuts, etc., and in taking prophylactic measures, and in keeping the tents in which my family and friends lived sanitary. I was rather sceptical as to the results to be obtained, but I was soon convinced that creolin-Pearson effectively fulfilled the purposes for which I used it.

"The sanitary condition of summer camps depends entirely upon the precautions taken to prevent disease. It is not sufficient to sweep and dust; one must scrub and disinfect besides.

"I made up my mind that I would take it upon myself to keep things at the camp as they should be, and, accordingly, I obtained quite a quantity of creolin-Pearson and distributed it among the campers, with suggestions for use. I directed that all utensils used should be scrubbed with a solution of creolin-Pearson, one teaspoonful to the quart, and then washed with boiling water; that all commodes, cuspidors, etc., should contain a solution of creolin-Pearson, one dessertspoonful to enough water to cover bottom, and allowed to remain so for the day, and then renewed. The floor was scrubbed or mopped by a solution of creolin-Pearson, one tablespoonful to the quart, and the carpets or rugs were swept with a broom dampened with the same strength solution. The garbage and waste, placed in receptacles designated for the purpose, were well sprinkled with a 25 per cent. solution. It was gratifying to note that, with these directions followed, everything was clean and sweet, and there was not one word of complaint.

"The tents we occupied were on the seashore, and whenever one came from bathing, a solution of creolin (one tablespoonful to the quart) was used to bathe the feet—thus to prevent contamination from the debris on the shore.

"Many times I was called upon to dress incised wounds of the feet and hands, and I always used creolin-Pearson as the one antiseptic, and in every case but one the result was gratifying—the one exception being due to uncleanliness and disobedience to instructions.

"In conclusion, I wish to state briefly and most emphatically my faith in the judicious use of creolin-Pearson and to recommend particularly that all who contemplate camping out or "roughing it" in the vacation period, include in their equipment a liberal supply of creolin-Pearson.—Edgar C. Joyce, M.D., of Brooklyn, N.Y.

FIBROLYSIN IN THE TREATMENT OF SCARS AND CONTRACTIONS.

Becker (*Deutch. Med. Woch.*) recommends fibrolysin, and praises very highly its action in Dupuytren's contraction and in the after-treatment of injuries. Stiff joints only respond partially to the treatment, and if inflammatory conditions are present, complete mobilization of the joint must not be expected.

Mendel (Berliner Klinik) discusses at some length the theoretical and practical aspect of this preparation. In therapeutic doses he finds it non-toxic. After intra-venous injection the substance is split up into its constituent parts and a garlic-like odor is noted in the expired air. Intra-muscular injection is preferred to subcutaneous injection, and at times even to intra-venous injection. It is painless, active and easy to carry out. After discussing the selective action on scar tissue which has been determined by microscopical examination, he turns to the method of application and dosage. Scrupulous aseptic precautions must accompany the intra-venous administration. It should be proven that the needle has entered the vein by a column of blood following the withdrawal of the piston. For adults, 0.2 of thiosinamine—that is 2.3 cc. of fibrolysin—is injected at a dose. Children one-half this dose. The injection should be repeated every two or three days, according to the severity of the case. Headache, sleepiness, and malaise are met with in cases of individual susceptibility. He has found results satisfactory where active dilatation can be applied. It would thus be useless in pyloric stenosis, unless the muscular wall is still in a good condition.

Lang (*Deutch. Med. Woch.*) has obtained good results in urethral stricture. He was able to follow two cases closely, one a traumatic stricture of fifty-three years' standing, was softened and dilated by this means, and in both cases no tendency to recontract has been observed. The cure has lasted in one case fourteen and in the other seventeen weeks.

Thiosinamine was introduced by Hebra in 1892 for the treatment of lupus. Chemically, it is ally-sulpho-urea. It was found to have a peculiar action on scar tissue, causing it to swell, stretch and become soft. Thiosinamine was objected to because inactive when taken internally, but little soluble in water, and very painful when injected in alcoholic solutions. Fibrolysin, a chemical composition of thiosinamine and sodium salicylate, was introduced recently. It is freely soluble in hot or cold water, but the solution undergoes oxidation when exposed to the air or light. It is put up in sealed vials, in which the solution seems to be indefinitely stable. Each vial contains 2.3 cc. of solution, corresponding to 0.2 gm. of thiosinamine.—*Mobile Med. and Surg. Jour.*, Oct., 1908

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

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Editorials.

LITHEMIA OR NEURASTHENIA ?

IN giving the satisfactory outcome of forty cases of neurasthenia, treated with urotropine, Dr. Langheld, (*The Therapist*, October 15, '08), claims that neurasthenia is a gouty neurosis. If we accept this view of the etiology of neurasthenia, Dr. Langheld's treatment of

the disease is reasonable, for urotropine is said to increase the secretion of urine and the excretion of uric acid.

It is possible, however, to interpret Dr. Langheld's cases differently; to consider them as cases of lithemia rather than neurasthenia.

Case 1.—Mr. C. F., fifty-four years of age. Subjectively—Reduced energy, insomnia, dreams, depression, appetite small, constipation. After leaving train, feeling of dizziness. Twinkling of the eyes. When turning the head, he noticed a cracking noise in the neck. Absolute loss of sexual feeling. Objectively—Tachycardia, nicotinism, hyperhidrosis, reflex of the sinews increased. Urine, dark yellow, cloudy, strongly acid; uric acid, 0.058 per cent. Kidney and bladder epithelia, uric acid and oxalic acid crystals.

Case 2.—Mr. G. H., thirty-four years of age. Subjectively, tinnitus, twinkling of the eyes, great sensitiveness of the whole head. Suffered from vomiting when travelling in train. Pain in the back, anesthetic feeling in hands and feet; constant fear of commercial failure. Insomnia. Objectively—Reflexes normal, slight salivation; non-smoker and teetotaller; signs of passed rachitis, especially at teeth. Patient had a somewhat suspicious expression in his face and told his sufferings like a man who read aloud an announcement of death. Urine cloudy, heavy sediment (reddish brown), strongly acid. Uric acid, 0.068 per cent. Many uric acid crystals in all forms, also oxalic acid crystals; kidney epithelia and cylindroids; indican increased.

Case 3.—Mr. A. C., forty-eight years of age. Subjectively—Since about six years had noticed that he could not continue his old style of living. The after-effect of drinking in the evening was severe. One day attack of dizziness, with very short but total unconsciousness. Patient, though well-to-do, feared failure, and suffered from melancholia. He sat for hours quite indolent, and caused his family much anxiety. His greatest fear was sudden death through apoplexy. Objectively—Tall, well-built man, with slight acne on face. Heart on the right side enlarged; liver and spleen normal. Constipation. Patellar reflex increased, Achilles' reflex lacking; joints crack at every movement. Some knots on the fingers. On the right big toe, exostosis. Urine dark yellow, very acid; became first cloudy, then slimy; thick, red, granular sediment. Uric acid, 0.09 per cent. Surface covered with uric and

oxalic acid crystals in all variations, mixed with cylinders, cylindroids, epithelia and lixiviated erythrocytes.

Of these cases, the two first might be classed under lithemia, the third as lithemia with a marked tendency to gout. If lithemia is sufficient to explain the psychic and physical array of signs and symptoms present in these cases, why ascribe them to neurasthenia? Osler associates neurasthenia and lithemia, saying: "In all forms of neurasthenia, the condition of the urine is important. Many cases are complicated with the symptoms of the condition known as lithemia, and so marked may this be, that some have, indeed, made a special form of lithemic neurasthenia." Savill (Lectures on Neurasthenia) differentiates lithemia from neurasthenia. He says: "Take lithemia, for instance, one of the commonest of toxic blood states. Many of the symptoms of neurasthenia have so strong a resemblance to those of lithemia that there is sometimes considerable difficulty in the diagnosis between the two conditions." Reference is here made, no doubt, to nervous irritability of temper, which is a striking symptom of lithemia, while dizziness and headaches are also among its most annoying symptoms. Depression of spirits is inveterate and unpleasant in lithemia, the patient imagining he is the subject of every known disease, and frequently thinking of suicide.

Beard says (Practical Treatise on Neurasthenia) that one of the most marked differences between neurasthenia from fatigue and lithemia from auto-intoxication is the mental confusion of the latter, and he holds that confusion of thought is almost universally the result of auto-intoxication and peculiar to it. Another marked difference between lithemia and neurasthenia is irritability of disposition and outbursts of bad temper in lithemia; in non-toxic neurasthenia, irritability is not so great, although depression and a deep sense of misery are noted.

A patient who is mentally depressed and confused, sleepless, constipated, who has noises in the ears and passes considerable quantities of uric acid, is lithemic. The cause of his varied symptoms is the use of unsuitable food and drink, associated with indolent habits of life. The employment of a treatment which common sense and observation would suggest, and the result of it will justify the diagnosis of lithemia. If the patient will give up, or considerably reduce, his meat ration, totally renounce alcoholic

stimulants, walk five miles a day, or do its equivalent of work or play, the action of his bowels will become free and regular, his melancholy and ill-temper will disappear, and his neurasthenia will fly away like "the baseless fabric of a dream."

Not so in pure neurasthenia. Beard says it is caused by worry and work and nervous strain. The remedies suggested for its relief are as numerous as the symptoms which it presents, and their enumeration alone would fill a page. No single medicine is able to *cure* neurasthenia; few remedies are required in lithemia.

J. J. C.

THE DISCIPLINE COMMITTEE SHOULD ACT ON INFORMATION.

THE following circular letter was issued (Oct. 27, '08) to County Attorneys throughout Ontario by Mr. Charles Rose, official prosecutor of the Ontario College of Physicians and Surgeons:

"*Dear Sir,*—The Council of the College of Physicians and Surgeons are anxious that any infractions of the law which would render any of their registered members liable to criminal prosecution, or which would in any way reflect upon their professional character, should come to their knowledge, so they have instructed the undersigned to communicate with you, in order that you may be placed in a position to advise them of any matters which may come to your knowledge, and which should, in your opinion, be attended to by the Discipline Committee of the Council.

"The Council of the College feel assured that infractions of the law and unprofessional conduct are the exception and not the rule; but they are anxious that the members of the College, and of the medical profession, should live up to the highest ideals of the profession, and with that end in view they are taking this course."

The opinion expressed in the concluding paragraph of this letter is true enough; few physicians in Ontario do break the criminal law, or are guilty of unprofessional conduct. All the more, it is expedient that, when the Discipline Committee of the Council do get a culprit before them, they should advise the Council of the College of Physicians and Surgeons to inhibit his professional movements, thus placing the honor and dignity of the physicians of Ontario on an unassailable basis.

J. J. C.

MATRICULATION REQUIRED BY THE COLLEGE OF PHYSICIANS AND SURGEONS OF ONTARIO.

English Composition, English Literature, English Grammar.
British and Canadian History, Ancient History.
Algebra, Geometry, Arithmetic, Mensuration.
Physics, Chemistry, Latin Authors, etc.
Latin Composition.
With either of the following as optional subjects:
French Authors, etc., French Composition.
German Authors, etc., German Composition.
Greek Authors, etc., Greek Composition.

The College of Physicians and Surgeons require fifty per cent. on each group and fifty per cent. on the whole.

According to the last published announcement of the College (1908), it was stated that forty per cent. was required on each group; this has now been changed to fifty per cent. on each group. The junior matriculation examination has, therefore, been made more difficult. No change has been made in the senior matriculation standard, which is the senior matriculation examination in the Faculty of Arts of the University of Toronto.

J. J. C.

THE PRESENT STATE OF IMPERIAL AND INTER-PROVINCIAL MEDICAL REGISTRATION IN ONTARIO.

We do not think it necessary to premise by an explanation of what is meant by the terms Imperial and Interprovincial Medical Registration, taking it for granted that our readers are quite conversant with their meaning. It will be interesting and instructive, however, to briefly glance over the status of these questions at the beginning of the present year. The College of Physicians and Surgeons of Ontario, judging from a discussion on the report of the Committee of Education, submitted at the last meeting, is opposed to medical registration between the United Kingdom and Ontario.

Besides, if Ontario were to adopt imperial medical registration, graduates from Quebec could, after practising for five years in some part of the United Kingdom, offer themselves for registration

in Ontario, without examination. A similar objection would, also, apply to the registration of graduates from Nova Scotia, and might, later on, be made to apply to graduates from New Brunswick and Prince Edward Island, should either of these Eastern Provinces adopt imperial medical registration.

Ontario and Manitoba may, in the near future, adopt interprovincial medical registration between themselves; Saskatchewan, Alberta and British Columbia are not asking for interprovincial registration with Ontario. The last-mentioned Western Provinces have no medical colleges of their own, and oblige graduates from Ontario, any other Province of Canada, or any other country, to pass a medical examination and pay the sum of one hundred dollars, in order to obtain the license to practise.

As matters stand, imperial medical registration with Ontario may be regarded as a dead issue; interprovincial medical registration a privilege, which may be exchanged between Ontario and Manitoba. For the benefit of the medical colleges of Ontario, it is to be hoped that arrangements will be made to establish interprovincial registration between Ontario and all the Western Provinces of Canada.

In future, Ontario graduates in medicine might be allowed to spend the fifth year of their apprenticeship in the office of a practitioner in a Western Province. There is a business aspect to this suggestion, which merits some consideration. A practitioner in a Western Province might object to act as a preceptor to a graduate, who, after securing the license, might start practice, in opposition to himself. A similar objection would, however, apply, if an Ontario practitioner were asked to play the part of incubator to the medical chick. No rule for settling such cases exists, and each case would have to be considered separately. Our suggestion is thrown out as a means of smoothing the road of the medical graduate from Ontario, who may be willing to place himself at the service of a Western physician, for one year, in order to acquire a practical acquaintance with the requirements of medical practice in Western Canada. The whole subject should be fully discussed at the next meetings of the Ontario Medical Association and the Canadian Medical Association. If deemed advisable, committees of these bodies might be appointed to confer with the College of Physicians and Surgeons of Ontario, or other Provincial medical

colleges, so as to reach a basis of action for the solution of the question of interprovincial medical registration in Canada.

J. J. C.

EDITORIAL NOTES.

Bad Ventilation Causes Broncho-Pneumonia.—All influences depressing to life, such as overwork, fatigue, the air of badly ventilated and crowded houses, insufficient food, and defects of hygiene, predispose to broncho-pneumonia. Bad or imperfect ventilation is, therefore, to be studiously corrected, for broncho-pneumonia is a common, serious, and fatal disease, causing more deaths among children under five years of age than any other disease except infantile diarrhea. In old people, it occurs during influenza, erysipelas, typhoid fever, Bright's disease and organic disease of the heart. The inhalation variety of the disease occurs in comatose states, and there are other forms of it, such as miners' broncho-pneumonia, steel-grinders' broncho-pneumonia, tubercular broncho-pneumonia. In the young, it is sometimes idiopathic; but it is frequently a complication of infectious diseases, such as measles, diphtheria, scarlet fever, whooping-cough, and smallpox. One wonders if an infectious disease may be directly causative of broncho-pneumonia, or if the complication may be brought about by a draughty sick-room, insufficient covering of the patient at night, or some other effective means of chilling the surface of the patient's body. In the Bulletin of the Chicago School of Sanitary Instruction, a notable increase of pneumonia in Chicago (November, 1908) is credited to foul air caused by closed windows; to prevent the danger, people are advised to open windows, and keep them open day and night all the year. The advice is sound, but requires some qualification. An open window is beneficial to the health of the occupants of a room; but to sit at an open window may prove dangerous to children convalescing from measles, diphtheria or whooping-cough. To expose such patients, with uncovered heads, at open doors and windows, or to let them play in draughty corridors, may prove the starting-point of broncho-pneumonia.

Ice Cream in Canada.—Bulletin No. 162 (Laboratory of the Inland Revenue Department, Ottawa) contains some interesting

data on ice-cream in Canada. All the inspectoral districts were represented, and the samples were collected in July and August, 1908. Of the 145 samples obtained, eighty were in good enough condition to permit of the determination of the fat. Forty samples contained above 14 per cent. of fat, and forty contained less than that amount. Of these, twelve samples contained less than 10 per cent. In Canada there is no standard for ice-cream. The United States standard requires 14 per cent. of fat. Fruit ice-cream and nut ice-cream are required to contain a minimum of 12 per cent. of fat. Ordinary ice-cream is flavored either by natural or artificial extracts of various fruits, vanilla, etc. The addition of these extracts to cream, together with the sugar, reduces the percentage of fat. Coal tar dyes were discovered in two samples from the Toronto district. "Gelatine and gelatinized starch are used as stiffeners, thus enabling the manufacturer to use a poor cream, and yet produce an ice-cream of apparently good quality."

Diphtheritic Genital Infection, Simulating Puerperal Fever.—In the section on Obstetrics and Diseases of Women, of the American Medical Association, at the fifty-ninth annual session, held at Chicago, June, 1908, Dr. Cuthbertson, attending gynecologist, St. Luke's Hospital, Chicago, reported a case of primary diphtheritic genital infection, simulating puerperal fever. Before coming under his care, the patient had received a good deal of instrumental treatment. She was edematous, and had nephritis; the forceps had been fruitlessly applied; craniotomy had to be performed. However, four days after delivery the patient felt much improved. Nine days after delivery there was a slight chill, followed by emesis. Two days later, a slight membrane was visible in the vagina. Four days after the first chill cultures were made from the patient's vagina on Löeffler's medium. In twenty-four hours colonies of diphtheria had appeared. Antitoxin was given on four occasions (10,000 units), the patient's temperature falling to normal on the eleventh day after the administration of antitoxin had been begun. A vaginal examination made under anesthesia on the sixth day after the beginning of the attack, revealed " a dull-grey membrane, with slightly elevated margins, just inside the introitus. It extends upwards towards the cervix. The membrane is in the form of scattered patches, the largest of which lies to the right of the anterior column; the mucous membrane at the margins

of each patch has an angry appearance; at one point near the vulva is an irregular gangrenous area. There is a dense membranous patch, one centimeter (2/5 in.) in diameter, on the anterior vaginal wall. When this is removed, there is some oozing of blood from the denuded surface. Around the cervix is a dense membrane, and here, at the site of a recent cervical laceration, is also found a markedly gangrenous area." Two days later, eight days from the beginning of the attack, three days after the first administration of antitoxin, the condition of the vagina was much improved. The membrane was fast disappearing, and the marginal mucous membrane had lost its angry appearance. The diphtheria bacilli had disappeared from the vagina thirteen days after the beginning of the attack and eight days after the first administration of antitoxin. Cultures of the Klebs-Löeffler bacilli from the patient proved fatal to a guinea-pig, and pure cultures of the germ were then made from the animal, showing the nature of the infection. No explanation is offered as to the source from which the primary infection of the genitalia of a puerperal woman was derived. Apparently healthy subjects, who have been exposed to infection, not forgetting doctors and nurses, may have diphtheria bacilli in the throat and nose for some time, which can only be detected by systematic bacteriological examination. The isolation of such persons is desirable, until the organisms have entirely disappeared.

A Chronic Typhoid Bacillus Carrier.—In a thesis published at Lyons, France, 1904, Dr. Mahaut announced that he had found Eberth's bacillus in the urine of typhoid patients during convalescence, as well as the febrile period of the disease, in 38.5 per cent. of the cases. This bacilluria is explained by the presence of the Eberth bacillus in the blood of the general circulation, and the ease with which this bacillus vegetates in the bladder of the patient. Other observers have noticed the presence of this Eberth bacillus in the urine for years after an attack of typhoid fever (Gwyn, Studies, III.; Practice of Medicine, Osler). The Chicago Department of Health reported (October 31, '08) that an individual in Chicago, who had not had typhoid for years, continued to void Eberth bacilli in the urine and feces. The blood also gave a slight Widal reaction. The discovery of this bacillus-carrier arose through an endeavor to ascertain the source of a case of

typhoid brought to the notice of the Chicago Health Department. The patient, who was four years old, had consumed nothing but boiled milk and distilled water, had not eaten raw vegetables or other food that would be likely to be contaminated with Eberth bacilli. The exact route by which the virulent bacilli were communicated from the bacillus-carrier to the child is not mentioned in the Chicago report, and can only be conjectured. It is said that carelessness in the disposition of the alvine discharges, as the result of which they are allowed to dry on linen, whence the bacilli pass into the air of the room, does sometimes occasion the infection of nurses, physicians and others brought into contact with typhoid cases. House flies might have deposited samples of the bacillus-carrier's urine in the child's milk.

Dental Decay in Children.—If, owing to constitutional vice, the teeth of children are defective; if pits, fissures, irregularities are present, a dentist should be promptly consulted. Besides, however, an enumeration might be made of some defects in the teeth of children which produce dental decay, or intensify existing decay of the teeth. Nowadays, foodstuffs are so prepared, that the teeth are not cleansed when eating them, and food particles lodge on and about the teeth. The cellulose of foods is cooked, softened, or extracted from the food given to children, and its detergent effects on their teeth are completely lost. When cooked or boiled, starch becomes pasty and is quickly changed in the mouth into sugar, which is rapidly fermentable. Sugar forms a gummy substance, clinging to the teeth and tending to entangle other substances. It also hampers the action of the saliva, which does not act on sugar, and has itself an irritating action on mucous membranes. Ice-cream is much used by children, particularly in summer. Pure ice-cream consists of frozen cream, sugar and flavoring extract, and has a considerable nutritive value. The objection to its use as a food by the young is its low temperature. Savill says, in Lectures on Neurasthenia, "Nothing can be more damaging to the teeth of children than the application of ice-cold fluids. It causes the enamel and even the dentine to split, and thus numerous microbes find access to the interior and decay speedily ensues. From these conclusions, one might say that a diet which calls for energetic jaw-action is useful in preventing dental decay in children. Energetic mastication cleans the teeth from mucous products and food

particles, prevents the lodgement of fermentable carbohydrates and acid-forming micro-organisms, and preserves the teeth in a vigorous state, by determining towards them a free circulation of arterial blood. Articles of food which require vigorous mastication, such as toast, biscuits of all kinds, rusks, bacon, fresh fruit, etc., should be added to the diet of young children.

J. J. C.

PERSONALS.

Dr. Charles M. Stewart, 142 Carlton Street, Toronto, late Senior Resident Surgeon, the Throat Hospital, Golden Square, London, will confine his practice entirely to diseases of the Ear, Nose and Throat.

Dr. C. D. Parfitt, who was for six years physician-in-charge of the Muskoka Free Hospital for Consumptives at Gravenhurst, Ont., and has been for the last seven months resident consultant to that institution and the Muskoka Cottage Sanatorium, has resigned his position. Dr. Parfitt will remain in Gravenhurst and continue practice in pulmonary and laryngeal tuberculosis.

News of the Month.

A DOUBLE JUBILEE IN THE HOUSE OF MERCK.

SEPTEMBER 1 was a red-letter day in the annals of the House of E. Merck, Darmstadt, for on that day two of the four principals of the firm, Dr. Louis Merck, Honorary Doctor of Medicine and Engineering, Life Member of the Hessian First Chamber, and his cousin, Dr. E. A. Merck, owner of the historic pharmacy, celebrated the 25th anniversary of their entry into the business.

Jubilees of long service are by no means rare occurrences at E. Merck's, and there are several employes still in harness who have even witnessed the 40th return of the day they entered the firm.

The principals themselves wished to celebrate it quietly, but such an event in one of Germany's leading chemical establishments was not allowed to pass unnoticed by the outer world, and it shows the admirable spirit existing between principals and employes that the whole of the official staff and workmen enthusiastically joined together to mark this occasion as it deserved.

All work was suspended for the day, and the whole of the staff and workers, male and female, met at 11 a.m. in one of the buildings, which had been specially cleared for this purpose. The building was most tastefully decorated with evergreens, flowers and flags. The senior members of the staff, in a few words, retraced the course of the tremendous strides made by the firm in the past 25 years, which had also witnessed the erection of the present new works and the foundation of an independent house in the United States. The presentation from the staff took the form of an album of photographs of its members. Then followed an illuminated address from the workmen, presented by one who has seen 40 years' service in the firm, as well as a flower arrangement.

The Grand Ducal Government was represented by the Minister of the Interior, who, in the name of the Grand Duke of Hesse, handed the insignia of the Cross of Honor of a high order to Dr. E. A. Merck. Congratulations followed from the representatives of the firm, many of whom were present from all parts of the world, succeeded by speeches from the Lord Mayor of Darmstadt, representatives of the technical industry, the medical and pharmaceutical professions, the Technical High School and the Chamber of Commerce, several illuminated addresses being presented.

Needless to add, the telegraph boys were busy bringing in countless congratulatory messages from friends all over the world.

After these proceedings had ended, the whole company adjourned to a large marquee erected on an open space in the factory, where, to the strains of a military band, interspersed by choruses by the factory's Singing Club, a cold collation was served.

In the evening all the principals accepted the invitation of the staff to that truly German institution, a "kommers." Besides the usual student songs, a theatrical performance was given by members of the staff. Various solos and musical productions by the employes contributed to make the evening an entire success, and to justify the words spoken by a director of a rival firm, present as a guest, that the perfect bond of union existing between principals and employes of Merck's would be hard to beat, and embodied the realization of the ideal conditions which all should strive to attain in such relationships.

MEDICAL APPOINTMENTS TO MUSKOKA SANATORIA.

At the meeting of the Board of Trustees of the National Sanitarium Association, held at the Head Office, 347 King Street West, on Monday afternoon, two important appointments were made in connection with the Muskoka Cottage Sanatorium and Muskoka Free Hospital for Consumptives.

Hon. W. A. Charlton occupied the chair, and among others present were W. J. Gage, J. J. Crabbe, T. H. Bull, Ambrose Kent, Thomas Long, Dr. W. P. Caven and Dr. N. A. Powell. The resignation of Dr. C. D. Parfitt as Resident Consultant was accepted. Dr. Alfred H. Caulfield, of the Toronto General Hospital, was appointed Resident Pathologist, and Dr. W. S. Lemon was added to the Resident Staff of the Muskoka institutions. Dr. W. B. Kendall continues in his position as Medical Superintendent of the two institutions. These appointments very greatly strengthen the medical position of the sanatoria, the two new appointees holding prominent positions in the profession.

Dr. Alfred H. Caulfield graduated in medicine in 1904. After graduating he became Assistant Bacteriologist to the Provincial Board of Health, and Demonstrator of Bacteriology in the University of Toronto. Later, he accepted the position of Interne in Pathology at the Toronto General Hospital, and was subsequently made the First Resident Pathologist of that institution. Spending a year abroad, he entered the laboratory as an assistant to Sir A. E. Wright, London, England. This was followed by a period in the laboratories of Dresden and Berlin.

Dr. Caulfield, not only from his excellent work done in the laboratories of the Toronto General Hospital, but through papers published, has gained a reputation not only in Canada, but beyond, and is recognized to-day as one of the foremost pathologists in Canada or the United States.

Dr. W. S. Lemon took first scholarship on entering his medical course in Toronto, and finally carried off the Gold Medal, Brown's Scholarship and Clark's Scholarship. After graduating, he took up a course in research work in the University, and was also for a time Resident Physician in the Toronto General Hospital, and has spent some time in general practice in Toronto.

CANADIAN MEDICAL ASSOCIATION MEETING AT WINNIPEG, AUGUST 23, 24, 25, 1909.

Dr. Blanchard, President, has appointed the following Committees. The first two names are the Chairman and Secretary, respectively.

Committee on Transportation—Drs. Blanchard (Chairman), Vrooman (Secretary), Charles Mackenzie, Moorhead, Rogers and Leney.

Ophthalmology and Otology—Drs. Prouse, Turnbull, Smith, Good, Raymond, Brown and Williams.

Entertainment—Drs. Rogers, Field, Devine, Milroy, Young and Fletcher.

Finance—Drs. Patterson, Simpson, Pope, Brandson, Popham, Moody, and Douglas.

Pathology—Drs. Bell, Pierce, Vrooman, Webster and Leeming.

Credentials—Drs. S. Campbell, Kenny and Mitchell.

Exhibit and Accommodation Committee—Drs. Munroe, Coulter, Davidson, W. G. Campbell, A. M. Campbell, Hiebert, Dubuc and Burridge.

Medicine—Drs. J. R. Jones, Hunter, MacDonnell, Rorke, Bjornson, E. W. Montgomery, Chestnut, McCalman.

Executive—Drs. Chown, Smith, Blanchard, Milroy, Devine, McLean, J. R. Jones, Halpenny, Vincent and Hughes.

Surgery—Drs. Nichols, McLean, Blanchard, Todd, Lehmann, Galloway, D. S. Mackay and J. McKenty.

Advertising and Publication—Drs. Hugh Mackay, Hughes, D. Stewart and D. Macdonald.

Those desiring accommodation during the above meeting should apply without delay, as the Conference of the British Society takes place on the same dates.

SPECIAL INSURANCE FOR PHYSICIANS.

THE attention of our readers is called to page xiii of this issue of *The Canadian Journal of Medicine and Surgery*, where they will see an important announcement as made by The General Accident Assurance Co. of Canada. This company are issuing this month a new policy, entitled The Utopia Policy for Physicians. After looking over a specimen policy, it seems to us that this is about the most liberal insurance policy to be procured in this country. Medical practitioners are exposed daily to both accident and disease, and it is a very important matter that they should be properly protected from such for both personal and family reasons. The chief features of the Utopia Policy include the payment of double indemnity for septicemia and private vehicle accident; beneficiary insurance, 10% accumulation for five years to principal amounts and weekly indemnity; hospital expenses or surgeon's fees for operations on the insured or the beneficiary; the payment of surgeons' fees for non-disabling injuries, and liberal fixed indemnity for fractures, dislocations, etc. All that a policy, including all the chief features, costs is but $2.00 per thousand more than an ordinary policy, so that physicians will at once see that such insurance as they can now receive from the General Accident Assurance Company is worth looking after. We think that it will pay any of our readers who have not already secured insurance to call at the Continental Life Building, corner Bay and Richmond Streets, Toronto, and talk the matter over with one of the managers.

THE NEW EMERGENCY HOSPITAL.

AT a recent meeting of the Board of Trustees of the Toronto General Hospital, Dr. N. A. Powell, Professor of Medical Jurisprudence and Associate Professor of Clinical Surgery, was appointed Senior Assistant Surgeon in connection with the Emergency Department of the new General Hospital. A completely equipped modern building for the care of accident cases and an auto-ambulance service are features of the scheme which he has been called upon to work out.

The Physician's Library.

BOOK REVIEWS.

The Medical Record Visiting List or Physicians' Diary for 1909. New revised edition. New York: William Wood & Co., Medical Publishers.

The Medical Record Visiting List for 1909 has reached us. For some years this list has been looked upon by physicians as one of the most useful published. There are a considerable number of improvements in this year's volume, it having "been revised so as to increase the amount of matter calculated to be useful in emergencies and eliminate such as might better be referred to in the physician's library." Perhaps the most important change is in the list of remedies and their maximum doses, apothecaries' and decimal systems, and the indication of such as are official in the United States. Among the contents we notice a table of equivalents of temperature, weight, capacity, measure, etc.; a table of maximum adult doses by the mouth in apothecaries' and decimal measures; solutions for subcutaneous injection, solutions in water for atomization and inhalation; the treatment of poisoning and other emergencies; artificial respiration, signs of death, etc., etc.

The Medical Record Visiting List will be found exceedingly useful to practitioners who desire to carry round with them a record of their daily work.

Proceedings of the Royal Society of Medicine. Vol II., No. 1. November, 1908. London, New York, Calcutta, Bombay: Longmans, Green & Co., 39 Paternoster Row. All rights reserved. Price, 7s. 6d. net.

We have just received the November issue of The Proceedings of the Royal Society of Medicine.

As a rule, after a volume has been published for a year or so, its readers somewhat lose interest. After looking carefully over Vol. II., No. 1, we can state that such is not likely to be the case with The Proceedings of the Royal Society of Medicine. The November issue is full of material that is highly scientific. Among its contributors we find such names as Drs. F. W. Higgs, J. Porter Parkinson, Chas. W. Chapman, J. Walter Carr, F. J. Poynton, Edmund Cautley, Duncan C. L. FitzWilliams, F.R.C.S., Geo. Car-

penter, W. Sampson Handley, Owen H. Peters, Gordon Holmes, Sir Malcolm Morris, K.C.V.O., F.R.C.S., Herbert Tilley, F.R.C.S., and Paul L. Giuseppi, F.R.C.S.

As already stated by us in our columns on a previous occasion, the volume issued by the Royal Society of Medicine undoubtedly is the cream of medical literature. W. A. Y.

Subcutaneous Hydrocarbon Protheses. By F. Strange Kolle, M.D., author of "The Recent Röentgen Discovery," etc. New York: The Grafton Press, Publishers.

This is a short and practical work on the subcutaneous employment of paraffine and other hydrocarbons for the correction of defects and some other deformities about the face, neck and shoulders.

This method of cosmetic surgery was introduced about eight years ago. The results have not always been satisfactory, but the failures in most cases have been due to defective or improper technic. The methods used at present are carefully described by the author, together with the results of his own practical experience in several thousand operations.

The difficulties connected with the work are described and explained, and methods for avoiding and overcoming these difficulties are given in detail. The practical technic, in all its minor details, is made plain, and by following these good results in cosmetic surgery should be obtained without great difficulty. A. E.

Vaccine Therapy and the Opsonic Method of Treatment. By R. W. Allen, M.D., B.S. (Lond.). Second edition. Pages xii—244 Demy 8vo. Price, 7s 6d. net. London: H. K. Lewis, Publisher, 136 Gower St., W.C. 1908.

That a second edition of this handbook is required within a year speaks well for the reception accorded it by the profession. Much has been re-written and much added. The technique of the determination of the index and of the preparation of the various vaccines in use is described in detail; for this part we think a few explanatory illustrations would add to the value of the work. Nearly one-quarter of the book is devoted to infections by the tubercle bacillus, and in those Portenger's recent book on pulmonary tuberculosis is freely referred to. In the directions for the cutaneous reaction, it would be better to follow von Pirquet's method of making the control abrasion, or rather stab, before making the test stabs. Spryler's differentiation of bovine and human bacilli is given at length, and there is a good discussion of the question of what tuberculin should be used in a given case. The subject of auto-inoculations by graduated exercise is dismissed with a ref-

erence to the work of Paterson and Inman. The dosage of tuberculin when not controlled by opsonic index is given in detail. A. is using at present mixed bovine and human T.R.'s for all cases. Where toxemia is an important factor he adds small doses of Deny's tuberculin.

Infections with staphylococcus, streptococcus, pneumococcus, gonococcus, are given six to ten pages each, rather less than the first two deserve in comparison with the prominence given to the tubercle bacillus. A number of other infections are dealt with, and there is a chapter on vaccines in diseases of the eye.

We recommend the work to those not familiar with the possibilities of vaccine therapy, though we feel that with index estimation so impossible to the vast majority of cases seen in practice the work would be of even greater service to the general practitioner if the method of administration without the index were given more prominence. J. H. E.

An Alabama Student, and other Biographical Essays. By WILLIAM OSLER, M.D., F.R.S., Regius Professor of Medicine, Oxford; Honorary Professor of Medicine, Johns Hopkins University, Baltimore. London: Henry Frowde. Toronto: Oxford University Press, Canadian Branch, 25 and 27 Richmond Street West. 1908.

We have read with more than usual interest Dr. Osler's most recent work, "An Alabama Student."

The book is biographical, and gives the reader a most interesting account of some of the leading lights in medicine who lived in the earlier centuries. Amongst the biographies appear those of Drs. John Basset, Thomas Dover, John Keats, Oliver Wendell Holmes, John Locke, Elisha Bartlett, Louis William Pepper, Alfred Stille, Sir Thomas Browne, and the renowned Harvey.

There is no doubt that a work such as "An Alabama Student" is not only thoroughly interesting, but also educational in character, and to any of our readers who have not secured a copy we heartily recommend them to purchase it without delay, as it will be the means of affording them from time to time an hour of the keenest interest.

Our only regret is that the biographies contained in the work very largely deal with the lives of physicians in the United States.

After reading this book we cannot but come to the conclusion that there was a very great deal in the sincerity of the lives of those great men of our profession, from which we can learn many lessons. Many of them could certainly be taken as models in the present day and generation, for, as the author states in his preface, "In no age and in no land have the Hippocratic ideals been more fully realized than in some of the lives herein portrayed." W. A. Y.

Green's Encyclopedia and Dictionary of Medicine and Surgery. Vol. IX., Rhinoliths-Thermotaxis. Edinburgh and London: William Green & Sons.

Volume IX. of Green's Encyclopedia covers practically everything from the word rhinoliths to thermotaxis. It is certainly a worthy follower to the volumes that have preceded it. It makes what is practically a complete dictionary from the letters Rhi-The. We recently had occasion to refer to a subject for information. We looked up two of the most recent medical dictionaries, and it was not until we referred to Volume IX. of Green's Encyclopedia and Dictionary of Medicine and Surgery that we secured the necessary information. Volume IX. has a large list of sub-authors. Among them we find such names as those of Drs. Norman Walker, Sir Patrick Masson, A. E. Garrod, T. R. Bradshaw, James Galloway, W. Leslie MacKenzie, Clement Dukes, J. R. Gilmour, J. M. H. MacLeod, Edmund Owen, J. Bland-Sutton, James Cantlie, Sir W. H. Allchin, Sir John Sibbald, G. L. Cheatle, E. Treacher Collins, Edwin Bramwell, J. W. Ballantyne and A. H. Tubby.

A chapter which interested us very keenly is that devoted to syphilis, its cause and the serum diagnosis of this disease. The longest chapter is that devoted to the stomach. This latter is divided into two sections—medical and surgical. The subject of the skin and its diseases is dealt with in six sub-divisions.

It would be a difficult matter to go into much detail regarding this work, as it is so comprehensive. It will suffice to say that Green's Encyclopedia is well worth owning, as it is not only a dictionary, but a work that almost replaces many volumes devoted to special subjects.

Principes Fondamentaux D'Obstétrique Vérifiés ou Établis à l'aide de l'expérimentation sur le mannequin naturel et de l'observation sur la parturiente. Introduction à l'étude clinique et à la pratique des accouchments, Anatomie, Présentations et Positions, Mécanisme, Toucher, Manœuvres Extraction du Siège, Version, Forceps, par Le Professeur L. H. Farabeuf et le Docteur Henri Varnier. Préface du Professeur A. Pinard Dessins démonstratifs de L. H. F. donnant, avec les répétitions nécessaires, 375 Figures dont plusieurs nouvelles. Nouvelle édition Révue et augmentée. Paris: Georges Steinheil, Éditeur, 2 Rue Casimir Delavigne. Prix, 15 francs.

The Introduction to the Clinical Study and Practice of Obstetrics, by Farabeuf and Varnier, is a work which should be well known in English medical literature. We notice that cuts, showing four presentations of the vertex, four presentations of the face, four presentations of the breech, and four presentations of the shoulder, have been taken, with acknowledgments, from this work,

and appear, on a reduced scale, in the twenty-third edition of Dunglison's Medical Dictionary. The book is not a manual of obstetrics, nor a complete treatise of obstetrics; its specialty lies in the description and illustration of the anatomy and functions of the pelvic canal. On these studies is based a closely reasoned, and in many respects a novel, account of the mechanism of any kind of presentation occurring in natural or artificial labor. The management of breech presentations is taught in a detailed, complete manner. Version and the application of the forceps are described and illustrated with minute correctness and extraordinary fullness and completeness. A student of midwifery who cannot avail himself of the operative advantages of an obstetrical service, or an accoucheur, who wants to know what he should do, when called on to manage any kind of a presentation, should study these life-like cuts. They are not fancy pictures; but, as the learned Adolphe Pinard says, "are mathematically proportioned, anatomically exact, drawn with no pretence to effect, and they do not represent the nearly correct."

These cuts appear on almost every page, and are in themselves more than worth the small price of the book. We are going to have our copy, which is bound in paper, rebound substantially, for the book is well worth keeping. J. J. C.

Report on the Prevention of Malaria in Mauritius. By Ronald Ross, D.P.H., F.R.C.S., D.Sc., LL.D., F.R.S., C.B., Nobel Laureate, Professor of Tropical Medicine, University of Liverpool, etc.; Major I.M.S. London: Waterlow & Sons, Limited, London Wall. 1908.

We have received from the Secretary of State for the Colonies a copy of Major Ronald Ross' report on malaria in Mauritius. This report was made at the instance of the Government of Mauritius and the Colonial Secretary. Rarely does one find a government report so readable and so full of valuable information written in such a pleasing manner. It is a most interesting account of the visit to the island and of the measures recommended as a result of the studies made while there. The first part gives a summary of our present knowledge of the epidermology of malaria, which is splendid. Conditions in Mauritius are then dealt with. We learn that Mauritius has a population of 384,676, total deaths 14,139, or 37.4 per 1,000 population; deaths from fever, 5,384, or 14 per 1,000, fever being responsible for about 31 per cent. of all deaths. One-quarter of the admissions to hospitals were for malarial diseases. Out of 31,022 children examined, more than one-third had enlargement of the spleen, and it is inferred that at the beginning of the last malaria season 42.7 per cent. of all the children on the island were infected with malaria.

There is a valuable historical summary of the appearance of malaria on the island in 1866 and of the fatal epidemics following this. In 1867 the malaria death rate was 90 per thousand. In Port Louis, with a population of 87,000, there died in the month of April alone 6,224, and on one day 234.

The Government are apparently anxious to undertake the work of prevention of the disease along the lines laid down by Ross, and, though it is a much more extensive undertaking than that at Ismailia, Port Swettenham and elsewhere, there is every reason to expect that the results will be quite as satisfactory. The measures recommended by Ross may be thus summarized: (1) a periodical spleen census of children in schools and on estates; (2) treatment of those found with enlarged spleens; (3) a certain amount of quinine distribution; (4) house protection from mosquitoes; (5) mosquito reduction by various minor and major works of drainage of pools, keeping ponds and edges of streams clear of weeds, canalizing streams, draining marshes, etc.; (6) suitable organization and an annual report. J. H. E.

Gynecology and Abdominal Surgery. In two large octavos. Edited by Howard A. Kelly, M.D., Professor of Gynecologic Surgery at Johns Hopkins University, and Charles P. Noble, M.D. Clinical Professor of Gynecology at the Woman's Medical College, Philadelphia. Large octavo volume of 862 pages, with 475 original illustrations by Mr. Herman Becker and Mr. Max Brodel. Per volume: cloth, $8.00 net; half morocco, $9.50 net. Philadelphia and London: W. B. Saunders Company. 1908. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

Any work having on its title page the name of Howard Kelly bears with it a reputation of no mean order. This volume, edited by Drs. Kelly and Noble, is no exception, and it makes a welcome addition to our library.

Amongst the authors of Volume II. we find such names as those of Drs. J. M. T. Finney, Barton Cook Hirst, Joseph C. Bloodgood, Geo. Ben. Johnston, B. G. A. Moynihan, John B. Murphy, Albert J. Ochsner, and our confrere, J. F. W. Ross, of Toronto. Volume II. consists of, in all, forty chapters, covering about eight hundred pages. Amongst the subjects considered are: Complications Following Operations; Operations Upon the Gall Bladder, Bile-Ducts and Liver; Pyloroplasty; Intestinal Surgery; Operations for Diseases of the Vermiform Appendix; Operations Upon the Stomach; Operations Upon the Spleen; Hernia; Surgery of the Ureter; Surgery of the Kidney; Tuberculosis of the Peritoneum; and last, but not least Chapter XXVII., Cesarean Section and Porro-Cesarean Section, by Dr. J. F. W. Ross. The work is gotten up in the very best of style, is illustrated very largely with some splendid half-

tone work, and contains quite a number of colored plates which have been executed with the most delicate hand. This book should undoubtedly find a place in the library of every physician, not alone the specialist. We question whether it will not be a matter of years before any literature in advance of Dr. Kelly's most recent work will be published.

Quain's Elements of Anatomy. Editors, EDWARD ALBERT SCHAFER LL.D., Sc.D., F.R.S., Professor of Physiology and Histology in the University of Edinburgh; JOHNSON SYMINGTON, M.D., F.R.S., Professor of Anatomy in Queen's College, Belfast; THOMAS HASTIE BRYCE, M.A., M.D., Lecturer in Anatomy, University of Glasgow. In four volumes. Vol. III. Neurology. By E. A. SCHAFER and J. SYMINGTON. Part I. Containing the General Structure of the Nervous System and the Structure of the Brain and Spinal Cord. With numerous illustrations, many of which are colored. Eleventh edition. London, New York, Bombay and Calcutta: Longmans, Green & Co., 39 Paternoster Row. 1908.

This, the eleventh edition of Quain's Anatomy, embraces the General Structure and Mode of Development of the Elements of the Nervous System and the Special Structure of the Spinal Cord and Brain. It is a volume of about four hundred pages, and goes very thoroughly into the subjects named. The first eighteen pages are devoted to the General Structure and Mode of Development of the Nervous System, and the following thirty-five pages to the Structural Elements of the Nervous System. The Cerebro-Spinal Axis is very fully considered and takes up the balance of the book, the Internal Structure of the Spinal Cords, its Microscopic Structure, the Origin of the Spinal Nerves, etc., being fully considered.

Quain's Anatomy has for many years been looked upon as one of the best published. This volume is certainly no exception to the rule, and anyone desiring to purchase a work on the elements of anatomy cannot do better than communicate with the publishers, Messrs. Longmans, Green & Co., 39 Paternoster Row, London, Eng.

AN UP-TO-DATE PUBLISHING HOUSE.—We would refer our readers to the announcement each month of the well-known firm of P. Blakiston's Son & Co., 1012 Walnut St., Philadelphia, Pa. This house are publishing each month a very attractive list of medical books, the most recent ones being Sluss' Manual of Emergency Surgery, Meller's Ophthalmic Surgery, Tyrode's Pharmacology, Gordon's Diseases of the Nervous System, Rodman's Diseases of the Breast, Maylard's Abdominal Tuberculosis, and their 1909 Physicians' Visiting List. It will more than repay our readers to send for Blakiston's recent list, from which they will reap considerable literary benefit.

The Canadian Journal of Medicine and Surgery

A JOURNAL PUBLISHED MONTHLY IN THE INTERESTS OF MEDICINE AND SURGERY

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Original Contributions.

RHEUMATISM.*

BY J. C. MEAKINS, M.D.

Resident Pathologist, Presbyterian Hospital, New York City.

[NOTE.—These experiments, begun in the laboratory of the medical clinic of Prof. Barker, of Johns Hopkins University, were completed in the Presbyterian Hospital, New York City.]

ONE feels rather appalled when he considers what the diagnosis of rheumatism may mean at the present time. The word has been applied to nearly every joint and muscular pain that is met with in the practice of medicine. We have acute rheumatism, chronic rheumatism, gonorrheal rheumatism, muscular rheumatism, and so on until "rheumatism" seems but a bye-word in our medical nomenclature. The time is too short to deal with all these so-called rheumatic lesions; so at the present I shall confine myself entirely to that disease which was first called such, namely: Acute articular rheumatism, or rather acute rheumatic fever.

The latter is the better name, when we consider that it is not simply a joint affection, but involves many parts far distant from each other. We can only properly grasp the significance of its many manifestations when we consider it a systemic disease. We first hear of acute articular rheumatism as a distinct entity early in the 17th century, when it was differentiated from gout. The next step in the proper conception of this disease was the recognition of its close relation to chorea. Then, in the early part of the last century, several observers called attention to the frequency of cardiac complications, which were soon looked upon as manifestations of

*Read at the meeting of the Ontario Medical Association, Hamilton, May, 1908.

this disease. Since then the conception that acute rheumatic fever is a systemic disease has gradually found more acceptance, but this has been greatly hampered by the perpetuation of the nomenclature acute articular rheumatism, although we may have acute rheumatic fever without joint lesions.

The history of the etiology of acute rheumatic fever shows many different theories. First, it was thought that it was due to cold, dampness and changes of temperature. Then, in 1831, Dr. J. K. Mitchell advocated the theory that it was due to a lesion of the central nervous system, and this theory even advanced so far as to localize the site of disease in a hypothetical joint centre. Following this the chemical theory held sway, chiefly advanced by the English writers, in which lactic and uric acids were given pre-eminent places. Next the toxic theory was advanced, which ascribed the disease to intestinal putrefaction and the absorption of the toxins so formed. In 1888, however, a new conception of acute rheumatic fever was realized when Cheadle conclusively demonstrated that the arthritis was but one manifestation of a general disease. With the advance of bacteriology the close resemblance between acute rheumatic fever and other infectious diseases was observed. Achalme[1] described a bacillus which he isolated from the joints of a case of acute arthritis. Singer[2], Sahli[3], Maragliano[4], and others reported Staphylococcus aureus as the cause.

Then Dana[5], Charrin[6], and Lubarsch[7] isolated a diplococcus or streptococcus from acute rheumatic fever cases. In 1899 Wassermann and Westphal[8] published an exhaustive experimental study of a streptococcus which they isolated from a case of chorea following acute rheumatic fever, and with which they produced polyarthritis in rabbits.

Since 1900 a most important and exhaustive study of acute rheumatic fever has been carried on by British investigators, chief among whom are Poynton and Paine[9], Beattie[10], and Shaw[11]. They have repeatedly isolated a diplococcus from the fluids and tissues of patients suffering from acute rheumatic fever, both antimortem and post-mortem. This organism they have named "Diplococcus Rheumaticus."

They have grown it from the blood, urine, and pleural exudate of acute rheumatic fever patients during life, and from the heart valves and the pericardial fluid after death. They have also demonstrated it in sections of the heart valves and pericardium, and of a rheumatic nodule in a fatal case of acute rheumatic fever.

It seems from the rapidly accumulating facts that acute rheumatic fever is a bacterial infection, and that the organism is a streptococcus. That it is a distinct variety of the streptococci has yet to be proven. Bacteriologists are not ready at the present time to classify streptococci as Streptococcus erysipelatis, pyogenes

and rheumaticus, or as Streptococcus brevis and longus. It is true that streptococci do cause at times well marked clinical pictures, and do vary in the length of the chain found, but are these essential differences on which to base a definite classification and to state a streptococcus which produces erysipelas will not also produce rheumatic lesions? The following case will illustrate the fallacy of such a contention.

R. E., aet 17, single, laborer, white, entered the Presbyterian Hospital under the service of Dr. Gilman Thompson, to whom I wish to express my thanks for permission to report the clinical history.

Family History:—One sister has chorea.

Personal History:—Frequent "sore throat," acute rheumatic fever, with cardiac disease, in 1905.

Present Illness:—In October, 1907, he began to have cough and dyspnoea, which became worse, and he had to stop work in the latter part of November, 1907. About December 25, 1907, he began to have epigastric pain, anorexia and vomiting, which continued until his entrance to the hospital, on December 30, 1907.

Physical Examination on Entrance:—Well developed young man, dyspnoeic, orthopnoeic and cyanotic, praecardium bulging, with a diffuse pulsation. Heart was enlarged to the left and right. There was a long murmur, occupying the entire systole, heard best at the apex and transmitted to the back. Second pulmonic sound was short and sharp. Faint presystole thrill was present. There was passive congestion of both lungs. Liver was tender and extended 6 cm. below the costal border. Some ascites was present. Slight oedema found over shins. Temp. 98°, pulse 108, respirations 30.

Jan. 4.—Jaundice present.

Jan. 6—Heart and liver slightly smaller. Temp. 101½°.

Jan. 11.—To and fro friction sound over the pericardium. Temperature 102°.

Jan. 12.—Signs of fluid in pericardium. Temp. 101½°.

Jan. 13.—Cardiac dulness steadily increasing, friction rub less apparent.

Jan. 14.—Paracentesis of pericardium unsuccessful.

Jan. 15.—Swelling of left arm and signs of consolidation of the apex of the lower lobe of the left lung.

Jan. 20.—Cardiac dulness had diminished and patient was improving; signs of consolidation in left lung much less, but there were signs of fluid over the left apex. Temp. 100° to 102½°.

Jan. 23.—Erysipelas of the face developed. Temp. 104°.

Jan. 25.—Condition remained about the same, and patient died suddenly. Temp. 103°.

An autopsy was performed 7 hours post mortem, and the anatomical diagnosis was as follows: 1, Facial Erysipelas; 2, Acute

vegetative aortic Endocarditis; 3, Acute vegetative mitral Endocarditis; 4, Acute vegetative tricuspid Endocarditis; 5, Chronic mitral Endocarditis; 6, Acute serofibrinous Pericarditis; 7, Acute fibrinous Pleuritis of right side; 8, Acute serous apical Pleuritis of left side; 9, Thrombosis of the left subclavian vein.

The bacteriological findings were as follows: Smears from: Aortic valves, Streptococci; Mitral valves, Streptococci; Tricuspid valves, Streptococci; Thrombosis of subclavian vein, Streptococci; Pericardium, Streptococci.

Cultures from: Spleen, B. Coli; Liver, Sterile; Heart blood, Sterile; Thrombus, Streptococci; Erysipelas, Streptococci and staphylococcus albus; Pericardium, Streptococci.

A comparative study of the three strains of streptococci isolated showed them to be identical as far as could be determined by staining and cultural methods. They failed to produce acid and precipitate bile salts in McConkey's bile salt lactose broth, to which reference will be made later.

There seems to be little doubt that the cardiac lesions in this case were of rheumatic origin, and that the erysipelas was caused by the same organism is also very likely, as there was no other erysipelas in the hospital at this time.

So, in this case, at least, we may conclude that erysipelas may be caused by the same organism that produces acute rheumatic fever.

The exhaustive studies carried out by Marmorek on different strains of streptococci have led him to believe that they are all identical, or, at least, cannot be differentiated. He bases this belief on the fact that after filtering broth in which one strain of streptococcus has been grown, no other streptococci will grow when this filtrate is used as a culture media. Recently Gordon[12] has advocated the use of a very elaborate series of culture media for their differentiation. The principle on which he bases his work is that there may be different chemical reactions with the growth of each class. Gordon and Houston examined about 800 different strains. Later, Andrews & Horter[13] made a very elaborate report of about 400 more colonies. They combine these with the results of Gordon and Houston and attempt a classification of 1,200 odd strains, according to the reactions obtained on Gordon's series of media. They make the following main classes: 1, Streptococcus equinis; 2, Streptococcus mitis; 3, Streptococcus pyogenes; 4, Streptococcus salivarius; 5, Streptococcus anginosus; 6, Streptococcus faecalis; 7, Pneumococcus.

Besides these they made numerous sub-divisions which depended upon differences of minor importance. They acknowledge that it is a most complicated classification, but hope that more study may simplify it and make it more practicable.

Among the 400 cases examined by Andrews and Horter there

were six which might be called Streptococcus rheumaticus, according to their source. They isolated four strains from cases of acute rheumatic fever at autopsy, while one was obtained from Payne and one from Beattie. These six strains were classified as follows: 1, Streptococcus pyogenes; 1, Streptococcus salivarius (Paine); 1, Streptococcus faecalis (Beattie); 3, Streptococcus anginosus.

In order to compare the streptococcus rheumaticus with other streptococci by this method I have examined nine strains from various sources, with the following results: 1, from chronic arthritis classified as anginosus; 1, from blood of acute rheumatic fever classified as anginosus; 1, from Tonsillar crypt classified as anginosus; 3, from Tonsillar crypt classified as faecalis; 1, from cellulitis classified as pyogenes. Streptococcus rheumaticus obtained from Dr. Cole, of Baltimore, being a transfer from one of Payne's original strains is classified as pyogenes: 1, from erysipelas in the case reported above classified as salivarius; 1, from pericardium in the case reported above classified as salivarius; 1, from the thrombus in the case reported above classified as salivarius.

The last three will be considered but as one strain, as no difference has been found.

Eight distinct strains of the so-called streptococcus rheumaticus have been examined by different workers according to the method of Gordon and the results are much at variance: 2 strains appear to be pyogenes; 2 strains appear to be salivarius; 1 strain appears to be faecalis; 3 strains appear to be anginosus.

According to this classification therefore, Streptococcus rheumaticus is not a distinct organism separate from other streptococci.

Dr. Beattie[14], of Edinburgh, who reports an extensive bacteriological study of the so called Streptococcus rheumaticus, states that the only differences that he was able to demonstrate between it and other strains of streptococci were the following:

1st. The acidulation and deposit of bile salts in McConkey's lactose broth.

2nd. The formation of a serous exudate in the synovial membranes, while other strains of streptococci produced a purulent exudate.

In order to test the value of these two points of differentiation I have performed the following experiments:

Twenty-five strains of streptococci from different individuals and different sources were examined as to their reaction with McConkey's bile salt lactose broth. They were the following: 1, from a chronic arthritis; 1, from the blood of acute rheumatic fever; 4 from tonsillar crypts; 14 from interior of tonsils after extirpation; 2 from cellulitis; 1 from empyaema sinus; 1 streptococcus rheumaticus from Dr. Payne; 1 rheumatic pericarditis.

Of these, eight produced an acid reaction and deposited bile salts after an incubation period of 72 hours. They were the following: 1 from chronic arthritis; 1 from the blood of acute rheumatic fever; 3 from interior of tonsils after extirpation; 2 from cellulitis and the streptococcus rheumaticus.

It may be well first to draw attention to the fact that two strains, perhaps three, of the so called streptococcus rheumaticus gave a positive reaction. But on the other hand five other strains also gave it. It is possible to contend that the three organisms obtained from the tonsils were also Streptococcus rheumaticus as these were all obtained from patients with acute rheumatic fever. But the other two organisms were both isolated from very severe cases of cellulitis in which no manifestations of acute rheumatic fever were at any time present. On the other hand the streptococcus from a case of rheumatic pericarditis did not give the reaction. Thus it cannot be said that this reaction is peculiar to one variety of streptococci.

That the so called streptococcus rheumaticus is the only streptococcus which produces a serous exudate in the serous cavities has repeatedly been shown to be false[17]. So the following experiments are but a repetition of many others already reported.

Thirteen rabbits were inoculated into the ear vein with streptococci suspended in a normal saline solution. Nine different strains were employed, obtained from the following sources: 1, Chronic arthritis; 2, Blood of acute rheumatic fever; 3, Interior of tonsil after operation from a case of acute rheumatic fever; 4, Interior of tonsil after operation from a case of acute rheumatic fever; 5, Interior of tonsil after operation from a case of acute rheumatic fever; 6, Cellulitis; 7, Abscess; 8, Empyaema; 9, streptococcus rheumaticus from Dr. Payne.

1. Rabbit—Growth from one agar slant of streptococcus "K." injected into the ear vein on Feb. 10, '07.

Feb 11. Animal shows slight limping of right foreleg, examination negative. It is hyperaesthetic and has increased motor excitability.

Feb. 12. Fine fibrillary twitchings of the muscles which are aggravated on excitement. There are swelling and redness of the right wrist and elbow. At 5 p.m. the animal had general epileptiform convulsions and tetanic spasms lasting several hours. On the next day the right fore leg remained unchanged, but uses the hind legs with difficulty, and can walk but little.

Feb. 16. Animal normal.

Repeated injections as above produced a fugacious arthritis lasting a few days, but the animal always recovered.

2. Rabbit—Dec. 10, '06. Growth from 4 tubes of agar of streptococcus "G" in salt solution injected into the ear vein.

Dec. 11. Marked limping of the hind legs with swelling of both knees.

Dec. 24. The animal has had every joint in the extremities involved for a few days at a time, with swelling and redness of nearly all of them.

Dec. 31. Limbs all normal.

Repeated injections as above always produced a similar effect. On Jan. 25, '07, joints are all normal, but the animal seems very sick.

Jan. 26. Animal died. Autopsy negative. Cultures all sterile.

3. Rabbit—January 24, '07. Growth from 3 agar slants of streptococcus "H" injected intravenously.

Jan. 25. Arthritis of right fore leg with swelling and tenderness of right elbow.

Jan. 31. Extremities normal.

Animal was not again injected, but on March 28, '07, a slight limp of the right hind leg was noted. This continued, gradually becoming more marked. On April 15, '07, there was a definite firm enlargement of the joint with atrophy of the tissues above and below. On May 27 the swelling had increased. It seemed to be due to a bony and capsular change with no sign of effusion. Muscles were much atrophied. On May 30 a skiagraph was taken which showed distinct exostoses.

On June 20, '07, the animal died suddenly.

The cause of death was found to be due to torsion of the right cornu of a pregnant uterus. Other viscera were normal.

The right knee was distinctly larger than the left, with thickening of the periarticular tissue. On opening the joint a small quantity of thick, tenacious, non-purulent fluid escaped. There was some thickening of the villi and the cartilages had lost their lustre. There was slight erosion along the cartilaginous edges and also some hypertrophy. Cultures were negative.

One of the villi was incubated in bouillon, but the result was negative.

4. Rabbit—The growth of streptococcus "S" from one agar slant was injected into the ear vein on Nov. 21, '06. No arthritis developed. It was again injected on Nov. 24, '06, with the growth from two slants. There was still no effect. The growth from three tubes was injected on Dec. 3, '06, and on Dec. 9 marked lameness of the fore legs developed, with swelling and tenderness of the elbows and shoulders. This condition persisted until Dec. 14, and ten days later the growth from six agar slants was injected. Slight lameness of the left hind leg developed, but soon disappeared. For two days the animal appeared in normal condition, but on Dec. 30 it suddenly developed a complete paraplegia with semi-consciousness

supervening, and the next day it had numerous epileptiform convulsions followed by death.

At post mortem all the viscera were normal except the central nervous system. There were extensive haemorrhages in the dorsal and cervical cord and meninges, and also in the meninges over the medulla, cerebellum and base of the brain. No areas of softening were found.

Cultures and smears from the central nervous system, cerebro-spinal fluid, viscera, blood, joints and synovial membranes showed no organisms.

5. Rabbit—Animal was repeatedly injected with the streptococcus "G," but it was not until the growth from seven agar slants were given that the animal showed any ill effects. Then a fleeting arthritis of all the joints developed, lasting a few days only and then quickly disappearing.

6. Rabbit—On May 4, '07, animal was injected with the growth from two agar slants of streptococcus "cellulitis." On May 6 an arthritis of the left hind leg developed, which condition lasted three days and then completely disappeared.

7. Rabbit—On Dec. 6, '07, the growth from one agar slant of streptococcus " abscess " was injected intravenously. There was no effect. This was repeated on Dec. 17, and again on Dec. 25. Two days later a severe arthritis of the left knee joint developed with tenderness and swelling This persisted for five days and then quickly subsided.

8. Rabbit—The growth from one agar slant of streptococcus "empyæma" was injected on Dec. 6, '07. Two days later arthritis of the left fore leg developed, which quickly disappeared. On Dec. 26 the injection was repeated. Two days later the right fore leg was affected. This soon improved, but then the ankle of the right hind leg showed marked swelling and tenderness. By Jan. 7, '08, however, the animal was again normal.

9. Rabbit—This animal was repeatedly injected with streptococcus rheumaticus, but did not develop arthritis. It, however, became very ill and died two weeks after the last injection.

In all, it had received the growth from eighteen agar slants at different times.

The post mortem findings were as follows: Miliary abscesses of the kidneys. Acute vegetative mitral and aortic endocarditis. Joints normal.

Cultures—Peritoneum, sterile; Liver, B. Coli and streptococci; Spleen, streptococci; Heart blood, streptococci; Kidney abscesses, streptococci.

Smears from—Aortic valves, streptococci; Mitral valves, streptococci; Kidney abscesses, streptococci and pus.

10. Rabbit—This animal was repeatedly injected intravenously

with streptococcus rheumaticus after the organism had been passed through five mice. On one occasion it was given the growth from sixteen agar slants, but no untoward results followed.

11. Rabbit—The same result followed in this case as in the preceding one, even after very large doses of streptococcus rheumaticus.

12. Rabbit—The streptococcus rheumaticus isolated from the heart blood of No. 9 was injected in this case, but without effect.

13. Rabbit—This animal was treated exactly as in case No. 11 and with a similar result.

It will be seen from this short review of the animals used that streptococcus does not always cause arthritis or produce a purulent exudate into the joints. In seven animals, in which various strains were used, a fugacious non-purulent arthritis ensued. It is also just to point out that three of these also gave a positive reaction in McConkey's bile salt lactose broth. But in the other four, where this cultural reaction was absent, an acute arthritis also developed.

When we turn to examine the results obtained from the injection of streptococcus rheumaticus there is great disappointment. In the six animals with blood infection only one, No. 2, developed joint lesions. One, No. 9, however, died from the result of an acute endocarditis and general streptococcaemia. The areas in the kidneys might have been infarcts, but they had more the appearance of miliary abscesses. As no histological examinations were made we do not feel justified in absolutely diagnosing abscess formation. But yet it is suggestive, and this was the only organism which gave any appearance of a purulent process.

There are several points of interest in this series of animals which may here be noted. In Rabbit 1, forty-eight hours after the original injections and synchronous with arthritic lesions very marked nervousness developed, with general convulsions which lasted several hours. After this the animal remained very nervous with marked twitchings of the extremities for several days, but eventually recovered.

In Rabbit No. 4, there was a somewhat similar clinical picture, but, however, the result was different.

At autopsy haemorrhages into the substance of the cervical and dorsal cord were found, with many haemorrhages in the meninges.

The analogy between these two cases is rather striking, but very problematical.

It is mentioned here, in passing, to draw attention to the cause of chorea and its possible relationship to acute rheumatic fever, as Poynton and Paine reported a doubtful case of choreiform movements in a rabbit after intravenous injections of streptococcus.

The results of these experiments seem to corroborate the findings of previous workers, namely, that acute rheumatic fever is a strepto-

coccus infection. But that there is a separate and distinct strain for this special disease has not been proven and the above results argue strongly to the contrary.

The power of agglutination of streptococci by patients' sera has been repeatedly investigated in order to determine some difference, but so far without tangible results. The opsonic power of the blood at first gave us hopes that we might here find a trustworthy means of separating the different groups if there be such. With this object in view I examined the blood of twenty patients suffering from acute rheumatic fever as to the opsonic index. A variety of organisms were used, including "streptococcus rheumaticus," streptococcus from the tonsils of each patient, gonococcus and staphylococcus aureus. The results were not at all satisfactory, in fact were very confusing. There was great variation at different times, and where constant, the difference were not worth considering.

After the etiology of an infectious disease one naturally turns to find the point of entry. That many cases of acute rheumatic fever occur without any prodromata cannot be doubted. But a point of entry there must be in each case. Of course this may not be always the same. For many years the close relationship between acute follicular tonsilitis, so-called angina and acute rheumatic fever has been recognized.

Lemoine[15] reported the finding of a pure culture of streptococcus in the interior of the tonsils in 165 cases of tonsilitis associated with acute rheumatic fever.

With the object of determining if possible the frequency of streptococci in the tonsils of rheumatic patients the following experiments were performed.

In thirteen cases of acute rheumatic fever in the wards of the Johns Hopkins Hospital the tonsils were enucleated and in every case removed without tearing. Cultures were immediately taken from the crypts or external surface and innoculated on slanted glycerine agar. The object of these cultures was to obtain a comparative estimation of the flora present in the pharynx. The tonsils were then opened with aseptic precautions and the cut surfaces seared with a hot iron. Then a stab opening was made into the substance and cultures obtained on slanted glycerine agar and agar plates. The entire tonsil was now washed in 1 to 1,000 bichloride of mercury solution for thirty seconds and then thoroughly rinsed in several dishes of sterile normal saline solution and the entire tonsil placed in flasks of bouillon or litmus milk. After incubation for 48 hours agar plates and smears were made from the growth in the flasks.

The external culture in every case showed a growth of a great variety of organisms, but in each case streptococci were found. The

internal cultures taken through the sterile surface revealed a great diminution in the number and variety of organisms. Of eleven cases so examined there was a pure culture of streptococci in eight, or 73 per cent. In the other three cases a few staphylococci were associated twice and an unknown bacillus once. The tonsils were incubated en masse in ten cases and in nine, or 90 per cent., a pure culture of streptococcus was obtained. In the other case it was associated with staphylococcus aureus. In eleven of the twelve cases examined, a pure culture of streptococcus was obtained by either of the last two methods of procedure.

In the interpretation of these results we are struck by the fact that both tonsils yield comparatively similar results in all the cases. Also the great variety of organisms obtained from the external cultures and the uniformity of the finding of streptococcus in the interior and autolysed cultures. A cultural study of these strains did not show any material difference. Three gave a positive reaction in McConkey's bile salt lactose broth, while the others were negative.

There is only one conclusion that can be drawn and that is that streptococci may be present in the interior of the tonsil without giving any external signs of disease.

The pharyngitis present in acute rheumatic fever with the enlargement of the lymphatics draining this area is a fairly constant observation. That there is a direct lymphatic drainage from the tonsils through the cervical glands to the thoracic duct is an established anatomical fact.

That streptococci may be dormant in the tonsils seems shown, and thus the reinfection, so common in acute rheumatic fever, may be accounted for.

The tonsils and pharynx, however, are not the only portals of infection. Even as tubercle bacilli may pass through an apparently normal intestinal mucosa, so it is not past belief that streptococci may do the same. Chvostek[16] believes the tonsil and the intestinal tract to be the portals of entry for the streptococcus in acute rheumatic fever.

But why after one attack of acute rheumatic fever with or without tonsilitis and removal of this apparent portal of entry do we have recurrences?

This question leads us to deal with the treatment of acute rheumatic fever.

For many years the administration of salicylic acid in some form has been used as a specific for this disease. That in the great majority of cases it acts with phenomenal rapidity in allaying the arthritic symptoms and reducing the fever there is no doubt. But so far as its ability to control the visceral manifestations of acute rheumatic fever is concerned there is great doubt. Indeed endo-

carditis may develop weeks after the disappearance of the acute symptoms even if the patients are still taking salicylates. It is no uncommon occurrence to observe cases of acute rheumatic fever extend over months with exacerbations and relapses, development of endocardial and pericardial inflammations and perhaps chorea, the patient all this time being the subject of a most heroic salicylate treatment. Indeed this course may often have a derogatory effect on the patient. The disease at its onset is a streptococcaemia, and with each new joint involved, or when the endocardium, pericardium, pleura, lung, etc., show evidences of disease this condition has returned. So our treatment must be similar to that of other general infectious diseases as typhoid, pneumonia and tuberculosis. All the protective forces of the patient should be fostered to the greatest degree and the powers of elimination increased.

Salicylates should be given a fair trial, but if the effect is not prompt and decisive they should be discarded altogether. Absolute rest to the parts affected, whether joints or heart, should be vigorously enforced. An easily digested and nutritious diet should be given with a liberal supply of fluids. Pain may be relieved by local applications and the fever reduced by suitable hydrotherapeutics.

The results of increasing the immunity of the patient by means of anti-streptococcus sera have up to the present been far from successful. On the other hand the careful administration of streptococcus vaccine may be more encouraging. This should not be administered during the acute period of the disease. But when these symptoms have subsided their administration may help to overcome the organism if it be latent in the tissues. It is preferable to use the organism isolated from the blood, joint or tonsil for the manufacture of the vaccine in each case.

If there has been tonsilitis during the course of the disease the tonsils should undoubtedly be removed, not by clipping off the top, but by complete enucleation. An infected tonsil is of little value as a protective agent, but on the other hand is a continual source of danger as a means of reinfection.

Conclusions.

1. Acute rheumatic fever is a streptococcus infection.
2. It is a streptococcaemia at some stage and not a local disease.
3. The streptococcus producing acute rheumatic fever is indistinguishable morphologically, culturally and biologically from other streptococci.
4. The tonsil is probably the main point of entry of the streptococcus in acute rheumatic fever.

I wish to express my thanks to Dr. Barker and Dr. Cole for their valuable advice and aid in this work, and to Dr. Rosenheim for the tonsils obtained by operation.

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SPLANCHNOPTOSIS.*

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By splanchnoptosis we mean a general falling of the abdominal viscera. Enteroptosis is frequently used as a general term, but has the more definite meaning of falling of the intestines.

In entering on a discussion of this condition it may be profitable briefly to review some of the anatomical relations of the organs involved.

The kidneys are situated close to the spine on either side, in front of the last two ribs. The upper end of the right kidney reaches to the lower border of the eleventh rib, while the left rises to its upper border. They are imbedded in subperitoneal connective tissue. This tissue becomes loaded with fat, and thus the kidney lies in a bed of fat. An important connection exists through this subperitoneal tissue and the hepatic flexure of the colon, and also with the second portion of the duodenum. The upper half of the right kidney is covered by peritoneum and is in relation anteriorly with the liver. The greater part of the lower half is devoid of peritoneum and is in direct contact with the ascending colon and duodenum. The upper end of the left kidney is covered by peritoneum and is in relation to the stomach. The centre has no peritoneal covering and is attached to the pancreas through the subperitoneal connective tissue. A small portion of its lower and outer margin, also without peritoneum, is in contact with the descending colon. At the lower part of both organs is a small area covered by peritoneum and in relation to the colic vessels. Thus we see a direct connection between the portions of kidney devoid of peritoneum and the ascending colon and the duodenum on the right side, and the pancreas and descending colon on the left, through the connective tissue in which the kidneys are embedded.

The stomach, when empty, is situated behind the left lobe of the liver and in front of the pancreas.

The cardia is behind the seventh costal cartilage and about one inch to the left of the sternum.

The pylorus is three inches below the junction of ziphoid and body of the sternum and at the inner end of the eighth costal cartilage on the right.

The position of the stomach varies a good deal, according to whether it be full or empty, and also many stomachs are much more vertical in position, with the pylorus down and to the left.

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The ascending and descending colon are almost vertical, the ascending running upwards to the liver and external to the gall bladder. The descending colon is connected to the diaphragm at the level of the tenth and eleventh ribs. The ascending has a mesentery in 26 per cent., and the descending in 36 per cent., otherwise the posterior surfaces of the bowel are attached to the abdominal wall by the subperitoneal connective tissue. The transverse colon runs between the right and left, forming a curve forwards and slightly downwards, and mostly above a line between the highest points of the iliac crests.

The lower border of the liver practically corresponds with the lower costal margin.

Under normal conditions there is a well-marked intra-abdominal tension, due to the healthy tonic condition of the abdominal walls.

Ptosis is found at all ages and in both sexes. During adolescence there is not much difference between the sexes, but after this the number of cases found in the female is much greater than that in the male. This difference goes on increasing up to old age, so that as women arrive at seventy or eighty ptosis is the rule. This difference may be attributed to habits of life, to a naturally less powerful muscular system in the female, as well as to less stable nervous system and the after effects of pregnancy and parturition, tight bands, corsets, the weight of clothing dragging on the abdomen, and often a life where the abdominal muscles do not receive the necessary exercise for their full development. Perhaps the most potent factor is a lack of development and deficient stamina, either hereditary or acquired during the developmental period.

For the development of splanchnoptosis either the abdominal tension must become relaxed or the visceral attachments give way, or both. The tension, owing to the constant variations in the contents of the hollow organs and the stress of work and straining, requires the constant adjustment of a healthy and vigorous nervous system, and where this is not adequate we have the worst forms of the condition. The other variety, where the abdominal muscles become weakened and elongated by pregnancy or abdominal tumors, and with good enervation but some temporary general debility, is not so difficult a problem to deal with.

The symptoms of splanchnoptosis are rather vague and uncertain. Sometimes there will be a great deal of pain, aching and discomfort where there is very slight descent of an organ, while in numerous other cases no distress is complained of and no symptoms are noted. In these cases the ptosis is accidentally discovered during a general examination.

In a prolapsed kidney there is occasionally severe pain,

"Dietels Crisis" which has been variously accounted for. It was thought due to tension and consequent uretral obstruction, and to the effects of gout. Gastric symptoms are occasionally referable to pressure of a kidney on the duodenum.

The diagnosis must depend on objective findings. The thorax and abdomen should be well exposed to view, in a good light, with the patient on the back and the knees flexed to relax the abdomen. The breathing should be carefully watched. The position of the greater curvature of the stomach may be seen on deep respiration, and incidentally any peristalsis should be noted. This latter observation may be valuable in confirming, or otherwise, obstruction from pressure of a kidney on the duodenum or a kink in the bowel incident to descensus.

In a well-marked case we notice a flattening or actual sinking backwards below the ensiform cartilage, with a protrusion of the lower abdomen. The abdominal wall is flaccid and thin and the recti muscles may be abnormally separated. On inflation with gas, or preferably air through the stomach tube, we may see the outline of the stomach, and possibly be able to locate the lesser curvature, as represented by a line between the cardia and pylorus, lower than normal. We at the same time note the size of the organ and decide whether it be dilated simply, or prolapsed, or both.

On inspection we may be able to outline the colon, especially when distended with either air or water. This method will aid us to distinguish between the stomach and transverse colon.

Occasionally a kidney or spleen, especially if enlarged, may be noticed.

On palpation, with the patient still in the recumbent position, we may with the hand flat on the stomach detect a co-existent gastritis by the feeling of stiffness, and on inflation of either stomach or colon make out their position.

We feel the kidney through the loin with one hand behind and the other in front while the patient takes deep breaths. The kidney will descend with inspiration and rise again with expiration. Its size and form may often be made out to some extent in a thin subject. Some prefer the patient standing and leaning forward; others slightly turned on the side.

By palpation we may feel the enlarged or prolapsed spleen and also more or less of the liver below the costal margin.

By percussion, either with the tip of the finger alone or combined with auscultation, we may outline the stomach and colon, and where difficulty presents itself use the methods of inflation before mentioned. The percussion should consist in a very light tapping with the point of the finger. It may be combined with auscultation. Instead of percussing, stroking either across or

parallel to the stomach border is a useful method, combined, of course, with auscultation.

The colon may generally be outlined and followed in its course as well as the stomach.

To confirm our previous findings we should percuss for the kidneys, liver and spleen. The gastro-diaphane has occasionally proved of use in our hands. Once the light passed down until it rested behind a truss supporting a left inguinal hernia where by percussion the stomach colon line was hard to locate.

In some of those difficult cases where a kink in the bowel or pressure is suspected, bismuth with the food and the X-ray will prove of benefit.

Splashing in a thin-walled abdomen is often very serviceable, both for stomach and parts of the colon, particularly the cecum.

While the prospects are not good for a prolapsed organ returning to its normal position, we may do a good deal to alleviate the symptoms and make our patient more comfortable, and where the prolapse has been slight, cures have been reported.

The treatment of splanchnoptosis may be divided into prophylactic, medicinal, mechanical and surgical. The prophylactic consists in the proper care of the child, including everything pertaining to the best physical development, including diet, hygiene, out-of-door life, and clothing that will not unduly constrict the waist. In the adult the avoidance of constipation, keeping the health at the highest standard possible for the individual, and in women the immediate repair of perineal tears and careful support of the abdomen after labor till the abdominal muscles have regained their normal tone.

The mechanical treatment includes mechanical supports and bandages applied so as to lift the lower abdomen.

What we have found most convenient in our practice is an elastic band sewed to the lower border of a short corset. It has eyelets behind and is laced with the same lace as the corset. In front it is fastened by broad hooks and so adjusted as to come below the crest of the ileum, and when fastened it will lift the lower abdomen. The credit for this appliance is due, I believe, to Dr. Morris Longstreth, of Philadelphia. We have used it for years with very great satisfaction.

The surgical treatment finds its greatest field in the anchoring of the kidney, but stomach, liver or a loop of bowel have been raised and fixed by the surgeon with more or less success.

Medical treatment, of course, cannot do much toward restoring or replacing an organ, but yet may do a great deal of good. Rest in bed and measures calculated to increase the metabolism and deposit fat in the abdomen are of considerable service. Rest from

work, with good food, attention to the usually constipated bowel, and a good tonic, will sometimes work wonders.

One example of this kind may be given. M. P., aet. 31, mother of one child, complained of pain in right side of lower abdomen. Was treated for nine months for uterine and ovarian disease. On examination both kidneys were found prolapsed; right was at brim of true pelvis, and left near crest of ileum. The right kidney was excessively tender and had caused most of the trouble and the mistaken diagnosis of pelvic disease.

This patient was given a good tonic and a rest in the country for a month, and came home free from all pain. She was under observation for five or six years after this, but had no return of her old pain.

Of course, we know that frequently the prolapsed organ will cause pain and distress in one part of its course and not in another, but this will not explain the many cases like the above that get better promptly on well-directed tonic treatment.

DIFFERENTIAL DIAGNOSIS OF FUNCTIONAL ORGANIC PALSIES.

THE October number of *Archives of Diagnosis* contains a splendid short article on the above subject by T. A. Williams. He describes a new sign recently published by Hoover. This consists in the pressure exerted by the heel of the sound limb upon the floor or bed when the patient tries to lift the opposite leg or to sit up. A normal person synergically presses both heels against the floor when trying to get up from the recumbent position. In a true hemiplegic, full pressure is exerted only by the sound limb, the pressure of the paralyzed limb being diminished proportionally to the defect of the motor neurones, however hard the patient is trying to rise, or to lift the opposite leg, as the case may be; a simulator or hysteric, on the other hand, cannot lift the sound leg without exerting synergic pressure with the heel of the paralyzed leg; and when he is asked to lift the paralyzed leg his feigned attempt is unaccompanied by synergic downward pressure of the contralateral limb, this proving that no real attempt is being made to lift the leg.

A further modification of this sign has been described by Zenner. This consists in estimating the downward pressure of the thigh instead of that of the heel as employed by Hoover. Both these signs are easy of application.

Hysterics sometimes simulate facial palsy, as well as ptosis with or without orbicular spasm or contracture. In them, however, there is always synergic response of the palsied side when the well one contracts; for it is not possible to contract the muscles of involuntary expression homolaterally without long practice. The fact that the frontalis or orbicularis are spared does not, however, negative a lesion; for these are innervated by a separate portion of the facial nucleus (Page May and Marinesco) in the medulla, and have also a separate cortical centre: accordingly they may escape palsy derived either from the high or lower neurone, as well as in hysteria.

Organic ptosis must therefore be diagnosed by distinguishing the positive signs, such as the constant contraction of the corresponding corrugator supercilii to compensate the loss of the levator palpebræ; though even this may be simulated by a forcible con-

traction of the orbicularis at the same time, which will give rise to a clinical picture resembling true blephero-spasm with or without palsy. It is distinguished by the twittering and explosive volleying of the true spasm, while the hysterical is like a voluntary contraction, and does not so invariably begin in the orbicularis. A true palsy of the orbicularis is revealed by the sign of Cestan and Dupuy du Temps, which consists of the raising of the eyelid when the patient attempts to close the eyes while looking down. The palsied eyelid will perceptibly ascend before the eye closes.

It cannot be too widely known that a mere interruption of the pyramidal tract by edema, anemia or perhaps even toxin may give rise to a temporary Babinski sign, which will disappear with its cause. Therefore one should not prognose in a case where such a possibility is not excluded. It is not uncommon that dyscrasic states, such as diabetes and uremia, injure predominantly only one side of the nervous system. Even the causal factor of polyneuritis may act only unilaterally, as shown by the striking case of ascending paralysis cited by Camp, and found post mortem to be solely a unilateral peripheral neuritis without implication either of cord or brain. Nor must its unilateral commencement allow the spasticity of paralysis agitans to be confounded with that of frank pyramidal disease. Here a slight weakness of the achilles jerk sometimes occurs, as Risien Russell points out. Hysteria, however, cannot be excluded in some Parkinsonian cases; for even the trembling is much influenced by the will, and the spasticity becomes relaxed as the limb is used. A test I have often used is to suddenly clutch and raise the arm or leg while the patient is engrossed: flaccidity excludes paralysis agitans, and renders probable a diagnosis of psychic affection. The therapeutic test may then clinch the diagnosis. This test is, of course, not applicable to permanent hysterical contracture, but the general characters of these contractures are not likely to be confounded with the spasticity of paralysis agitans.

A special kind of incapacity for movement is that found in occupation cramp. Here the muscles can quite easily perform any movement called for, except the particular ones required by a specific act. It is not difficult to see from this very definition that its pathogenesis is psychic. It is indeed in mechanism a tic, only differing from one in being excited by a particular specific stimulus, viz., the desired automatic act, whereas a tic, in the strict sense, is excited by all and sundry stimulus, indeed independently of any.

It is thus a great error of practice to treat scrivener's palsy by local applications, massage, electricity, or strengthening exercises.

The muscle "cramp" is caused by the idea of the need to write, and is relieved at once by the replacement of that idea by another, such as the idea to perform some other act even by the same muscles; as, for instance, in the case of the girl who could not write with a pen but could do so quite well with a pencil. Is it not puerile to suppose that incapacity due to a weak muscle could extend to a pen without doing so to a pencil?

The whole matter of the tics cannot be entered into here save to mention one form, torticollis. This is a palsy in the sense that the head cannot be voluntarily straightened whether contracted constantly (tonic) or intermittently (clonic). The agonists of the desired act are overcome by their antagonists. Functionally speaking, the muscles are rarely groupable in terms of a particular peripheral nerve, but are always so in terms of physiological acts. They therefore correspond to cortical, not neural groupings.

THE SENSE OF WEIGHT IN THE AFFECTED SIDE.—ITS VALUE IN THE DIAGNOSIS OF LOBAR PNEUMONIA.

BY THOMAS F. REILLY,

Professor of Applied Therapeutics, Fordham University, New York.

The diagnosis of a fully developed pneumonia is generally very easy, yet all of us know that cases of well-marked pneumonia occur which present great diagnostic difficulties during their entire course, and for the first two or three days we are in doubt as to what condition is confronting us. This is especially marked when in the absence of characteristic sputa we are dealing with a so-called central pneumonia. In such a case an absolute diagnosis is impossible: yet with the concomitant signs of irritative cough, chill, temperature and disturbed respirative ratio, we may often feel safe in our diagnosis.

It is my intention to recall to the attention of the profession one other of these concomitant signs which may be of some corroborative evidence in such cases. No one who ever saw a lung in the condition of red hepatization can doubt that it weighs heavier than the normal lung.

Aufrecht, quoting Eichhorst, mentions a case in which a left pneumonia lung weighed four pounds more than the right lung, which was normal. Taking the statistics of Bollinger, Eichhorst and Kussmaul, there is an average increase in weight of two pounds and three ounces in the affected lung. In the stage of engorgement, of course, the increase in weight is somewhat less.

It seems scarcely credible that a patient could carry an added

weight of over two pounds on one side of the chest without being conscious of a feeling of heaviness or weight on the affected side. On careful questioning I find that as soon as the sensation of acute pain due to the accompanying pleural affection has passed off most patients suffering from croupous pneumonia in any form state that they feel a sense of weight or load on the affected side. Frequently it is only on sitting upright or lying partly on the sound side that the feeling of weight will be a prominent symptom. An intelligent patient is, of course, more apt to give us a satisfactory answer; yet in young children I have often been able to elicit the symptom.

The following instances are typical of some of the cases wherein the symptom was of value from a diagnostic standpoint.

Case 1.—Mrs. E., aged 32, mother of four children, seen by me on October 1, 1906. She has been complaining of malaise and shivering, with slight irritative cough, for two days; pulse, 96; respiration, 26; temperature, 102; examination failed to reveal any physical sign of disease. There was a flushing of right cheek and occasionally some catching respirations. However, on raising the patient to the sitting position she complained of a feeling of marked heaviness on the right side. There were no physical signs apparent until forty-eight hours later, when all the signs characteristic of lobar pneumonia of the right, middle and lower lobes were noticeable. It ran a course of seven days and terminated by crisis and recovery. The feeling of heaviness was of distinct value in arriving at a diagnosis two days before the physical signs.

Case 2.—John B., aged 7, seen by me March 1, 1908. The previous night he had a chill and some slight irritative cough. He complains of severe headache; pulse, 100; respiration, 32; temperature, 103. When raised up and turned quickly on sound side he says it feels as though a big log was thrown from his left side on his right side. There was, however, no sharp pain on the side. Physical examination revealed nothing. Thirty hours later physical signs could be made out over the left, upper and lower lobes. With the exception of a moderate amount of delirium, the case showed no unusual symptoms. It ran a course of nine days and terminated in crisis and recovery.

In thirty cases I have succeeded in eliciting this symptom, in twenty-one instances before the fourth day of the disease. Perhaps more care on my part and intelligence on the part of the patient would have furnished a larger proportion. In five cases it was of decided value in arriving at a diagnosis.

Doubtless many thousand clinicians have observed the phenomenon of an increased weight of the diseased lung in lobar pneumonia as a subjective symptom on the part of the patient, but

so far as I can ascertain no one has recorded it as a symptom of distinct diagnostic value. It is not featured as such in any text-book or work on physical diagnosis from Grissolle to Aufrecht and Müller. That it exists in most cases no one will question.

It is, no doubt, a valuable sign in the early diagnosis of lobar pneumonia, and it will often prove of distinct help in pointing to the seat of an acute affection when the symptoms are still vague and indistinct.—*Archives of Diagnosis.*

A Method of Demonstration of Parasite Eggs in the Feces.—Telemann, in *Deutsch Med. Woch.*, 1908, No. 35, suggests shaking a small quantity of feces with ether and hydrochloric acid C.P., equal parts, until as much matter as possible is dissolved. On standing three strata are seen. First the ether holding fats in solution, second the acid solution with bacteria and fecal masses, while in the lowest stratum is insoluble matter such as cellulose, muscle fibres and parasite eggs.

How Frequently do Gastric Ulcers become Carcinomata?—In *Surgery, Gynecology and Obstetrics* for June, Rodman reports nine cases of gastric carcinomata during the past two years; of these seven were at the pylorus, giving history of previous ulcer. Cruveilhier, in 1839, drew attention to the danger of malignant disease following gastric ulcer. Dietrich, in 1848, reported eight cases in which carcinoma developed. In 276 autopsies for carcinoma of stomach at Kiel from 1873-1900 the reports of Sennichsen and Klausa show that 54, or 20 per cent., grow either from ulcers or cicatrices. W. J. Mayo reports that 54 per cent. of his cases of gastric cancer in 1905-06 showed the origin to be gastric ulcer; Moynihan found that 16 of 22 gave history of gastric ulcer. Mayo Robson in his Bradshaw Lecture stated that 59.3 per cent. of the cases operated upon by him gave history of chronic ulcer.

Volkmann's Ischemic Paralysis.—In 1880 Volkmann first described ischemic paralysis. The characteristic features are rapid and simultaneous onset of loss of function, flexor contracture, and rigid resistance to passive extension. In paralysis due to nerve injury the muscles are flaccid and permit of free passive motion; contracture, if it appears, develops slowly and occurs late. Taylor, *Annals of Surgery*, Sept., 1908, reports a case, and refers to 58 cases previously reported. The forearm was involved in all but two of the 59 cases, the other two occurring in the flexors of leg and foot. The majority were in children from three

to twelve years of age. The ischemia which is responsible for this flexor paralysis may be caused by direct compression of the vessels and muscles through tight dressings, by contusion, laceration, thrombosis or embolism of the vessels, or by combination of these factors. If complete ischemia persists for six hours or more, serious contracture is sure to follow. At least 80 per cent. of the cases were due to tight dressings.

Recurrent Rheumatoid Ovulation Fever.—Riebold, *Deutches Archiv. fur klin. Med.,* XCIII., p. 15, reports six cases of febrile phenomena in young girls at time of menstruation, accompanied by rheumatic symptoms. The leucocytes were diminished, there were signs in the endocardium, the serous membranes and the parotid gland, with exanthemata. The bacteriologic findings were negative, but the condition appears to Riebold to be an infection. The height of the affection appeared to correspond with the height of ovulation (rupture of Graafian follicle).

J. H. E.

Selected Articles.

THE QUARANTINE OF SMALLPOX

BY H. M. BRACKEN, M.D., MINNEAPOLIS.
Secretary and Executive Officer, Minnesota State Board of Health.

While all intelligent and unprejudiced thinkers who have had any experience in dealing with smallpox recognize the protective value of vaccination, the general tendency is to insist on quarantine as an additional safeguard against this disease. It is for us to consider:

1. What does quarantine accomplish?
2. Is it necessary?

Quarantine is an evidence of ignorance. As soon as the true cause of any disease is recognized attention is directed to its prevention in the first instance rather than to its suppression after the disease has appeared. For example, with tuberculosis we direct our attention to destroying the infectious agent rather than to quarantining the patient. Again, before the means of transmission of yellow fever was known the quarantine methods used in the attempt to control its spread were most rigid, but when the world came to know that only a mosquito could transfer yellow fever from an infected to a healthy person, quarantine was practically abandoned and attention directed to keeping mosquitoes away from the patients, to keeping them away from healthy individuals, and to the destruction of the mosquitoes capable of carrying the infection.

Consistency would suggest that we follow a similar course with all preventable diseases when we have learned how to control them. So far smallpox has been an exception to this rule. We have known for more than a hundred years how to prevent this disease, and yet quarantine of all those exposed to or associated with a smallpox patient, as well as the patient, is still the general custom. Public sentiment demands this, and too often the medical profession supports the public in this unjust demand.

To control any disease by means of quarantine we must restrain all infectious individuals during their entire period of infection. With smallpox this may be possible if the disease appears at the outset in virulent form, and if municipalities are willing to bear

the necessary expense of restraining all such individuals. But if the virulent form of the disease becomes epidemic, or if the disease prevails in mild type from the outset, practically nothing is accomplished through quarantine, for there will always be mild unrecognized or concealed cases at large during part, if not the entire, time of their illness. Under such circumstances, while the quarantine is a failure, it entails great expense on the public and on individuals. It also favors a continuance rather than a control of the disease, for it is conveying to the public a sense of safety that does not exist, and thus encourages delay in vaccination in countries where compulsory vaccination is not enforced.

There is no objection to the isolation of smallpox patients, for we do not want the disreputable-looking creatures about. Those who are not protected by vaccination deserve no sympathy if they have reached mature years, and they, too, should be isolated or kept under rigid observation after an exposure to smallpox until it can be determined whether or not they are to develop the disease. To restrain or quarantine the immune, however, is an injustice which should not be tolerated.

Anyone who will study without prejudice the course of smallpox must admit the protective value of vaccination. Why, then, is not everyone protected? First, because people will not adopt such protective measures unless compelled by law so to do. Compulsory vaccination laws properly enforced will eradicate smallpox from any country.

Vaccination has been brought into disrepute by poor vaccine, by careless methods in vaccinating, and by the exaggerations and misstatements of the so-called anti-vaccinationists. It must be admitted that in some instances sore arms and even death follow vaccination, but when this happens the vaccinator is at fault rather than the vaccine, assuming that the vaccine is of good quality, as it should be in this country at the present time under government inspection. The production of all vaccine should be under some responsible governmental control. The punishment cannot be too severe for placing on the market a vaccine that is not safe.

The vaccine may be ever so satisfactory, but if the vaccinator is careless or the vaccinated is not properly cared for, infection at the point of vaccination may follow. Such conditions are far more apt to occur in a country without compulsory vaccination laws than in one where such laws exist. Under compulsory vaccination laws the exact amount of vaccine needed can be determined in advance. If it is known that 40,000 births occur annually in a state, then that state should have an annual market for at least 40,000 vaccination points or tubes. The producer, knowing this fact, can plan for producing this amount under the most favorable conditions. Without compulsory vaccination laws the vaccine producer

has nothing to guide him in the amount of vaccine to be produced. He must, therefore, try to keep a safe quantity on hand. If a smallpox scare arises there is at once a call for a large amount of vaccine. The producers' supplies will be exhausted, and they will hasten to replenish, although the conditions for so doing may be most unfavorable.

Careless methods of vaccinating should never be tolerated. They will exist, however, where there are no compulsory vaccination laws. A necessary accompaniment of compulsory vaccination is the public vaccinator, through whom the possibility of careless vaccination is reduced to a minimum.

Vaccination should be performed during infancy—by preference during the first six months of life. At this time the danger of infection at the point of vaccination is very slight indeed, for the child is living under ideal conditions. Still further, with compulsory vaccination laws the public vaccinator should choose his season for vaccinating. It is a well-recognized fact that vaccination should, if possible, be avoided during the hot summer months, both on account of the quality of the vaccine at that time and the condition of the individual to be vaccinated. In countries without compulsory vaccination laws vaccination is practised only when the alarm signal is sounded. Children of school age are often vaccinated just before the opening of schools in the fall—the most undesirable season of the year from every point of view. The methods of vaccination in vogue in this country at the present time are such as to make us wonder that we do not have more infection following vaccination.

The anti-vaccinationists say that physicians are in favor of vaccination because of the fees they derive from it. This is absurd. A physician cannot afford to vaccinate for the ordinary fee if he does it properly. He can make money on vaccinations only when he undertakes to vaccinate a great many people in a very short time—a kind of vaccination that should never be tolerated. Lady Mary Wortley Montague, in 1717, speaking of inoculation, said:

"I should not fail to write to some of our doctors (in England) very particularly about it if I knew anyone of them that I thought had virtue enough to destroy such a considerable branch of their revenue for the good of mankind. But that distemper (smallpox) is too beneficial to them not to expose to all their resentment the hardy wight that should undertake to put an end to it."

The anti-vaccinationists do not look on protection against smallpox (vaccination) as did Lady Mary Wortley Montague on inoculation. Lady Mary said that the doctors would not inoculate for fear of reducing their business; the anti-vaccinationists say that doctors vaccinate to make money.

Vaccination should be free. The public vaccinators should be trained in their special work, and should be careful and conscientious. Individuals should have the privilege, however, of choosing their own physicians as vaccinators if they wish, but such a private physician should vaccinate with as great care as he would do surgical work, and should be paid a reasonable fee for his services.

Physicians have placed themselves under criticism by urging compulsory vaccination laws on legislators. The enemies of vaccination charge physicians with mercenary motives in giving such advice, and the legislators too often listen to the ignorant ranters rather than to the scientifically trained physicians in such matters. Why should physicians place themselves in such an unenviable position? They should be satisfied with acting as educators, throwing the responsibility of legislation on the people themselves. As educators their influence should be against any attempt to control smallpox by means of quarantine.

In 1904, in the conference of state and provincial boards of health, held in Washington, a committee was appointed to report on the advisability of the abandonment of isolation in the attempt to control smallpox. The argument of this committee was to be based on the following propositions:

"Whereas, in many parts of this country (at the present time) a mild variety of smallpox is prevailing, and first cases are quite generally unrecognized, thus making their complete isolation impossible, and tending to spread the disease among the unvaccinated; and

"Whereas, the isolation of the many cases causes excessive expenditures in a fruitless attempt to restrict the spread of the disease; and

"Whereas, isolation of smallpox patients is practised chiefly for the protection of those indifferent or opposed to the only scientific means of preventing the spread of this disease, viz., vaccination; therefore,

"Resolved, That a committee be appointed by this conference to consider this subject in all of its bearings, and report next year as to whether in states where the above described conditions exist the effort to control smallpox should not be confined chiefly to vaccination and revaccination, rather than to depend in part or in whole upon quarantine."

At the conference meeting of 1905 these propositions were thoroughly discussed, and, while the majority of the state sanitary representatives were in sympathy with some radical action in favor of vaccination rather than quarantine as a means of controlling smallpox, no definite action was taken.

The Minnesota State Board of Health has taken a position

favorable to vaccination and against any false teaching relative to the protective value of quarantine. It did this only after carefully considering the subject. It preceded the publication of its new regulations relating to smallpox by the publication of the following resolution:

"It having been established that smallpox will not occur in a well vaccinated community, and that all attempts to restrain this disease in a community not protected by vaccination by means of quarantine will fail; that quarantine in a well vaccinated community is unnecessary; that attempts to control the spread of smallpox by means of quarantine are unscientific, irrational, expensive, and misleading; that in laying down strict rules for the quarantine of smallpox sanitary authorities are favoring unscientific and illogical methods for its control, and are conveying false ideas as to the safety of the public, the Minnesota State Board of Health advises that after January 1, 1908, further attempts to control smallpox by means of quarantine shall be abandoned. Meeting of the board, October 9, 1906."

The reason for postponing action on this recommendation until January 1, 1908, was that time might be given those who wished to do so to provide for their own and others' protection through vaccination before adopting a change in regulations.

This action of the board greatly disturbed the anti-vaccinationists, who sent their agents through the state decrying the proposed action of the board months before the new regulations were made public. These regulations are as follows:

11. The local health officer, having knowledge of, or having reason to suspect, the existence of smallpox, shall investigate, and at once place on the house where smallpox exists a sign setting forth the facts. This sign is to serve only as a warning to those who may wish to avoid the house, and not as an indication of quarantine. When the attending physician considers a smallpox patient as having recovered (no longer a source of danger) he shall report the fact in writing to the local health officer, who shall thereupon remove the warning card from the house. *The patient must not leave the house until after the removal of the warning card.*

"12. The apartments occupied by a smallpox patient shall be deemed infected, and when vacated by death, removal or recovery of the patient shall, together with their contents, be thoroughly disinfected under the supervision of the local health officer.

"13. Every physician shall immediately report to the local health officer in writing, the name of every smallpox patient under his care, the state of his or her disease, and his or her place of residence. A report must be made for each case as it occurs in a family or household.

"14. Every physician shall report, in writing, to the local health officer the death of any smallpox patient under his care within twelve hours thereafter.

"15. The local health officer of any city, village, or township must report within twenty-four hours to the secretary of the Minnesota State Board of Health all cases of smallpox occurring within his jurisdiction and the date of removal of the warning card."

When these resolutions were passed it was supposed that an old law was still in force which provided for the exclusion from school of unvaccinated children when smallpox prevailed in a community. It was thought that this would protect the young. It was found, however, that this law had been displaced by later legislation. The State Board of Health, at its regular meeting in April, 1908, passed the following regulations for the benefit of the unvaccinated:

"17. Following an exposure to smallpox, every individual who cannot show evidence of a recent successful vaccination or a recent attack of smallpox must be vaccinated within three days of the first exposure or placed under the same isolation restrictions as smallpox patients.

"If smallpox prevails in a community, or if the disease appears in a school, all unvaccinated teachers and pupils must be excluded from school for a period of three weeks unless vaccinated within three days of first exposure. Failing to comply with this requirement, the school must be closed for a period of three weeks.

"If smallpox appears in any class in any college in Minnesota, all unvaccinated teachers and students in the class must be excluded from recitations for a period of three weeks unless vaccinated within three days of first exposure. Failing to comply with this requirement, the classes attended by such teachers or students must be discontinued for a period of three weeks."

The board expected criticism from the laity for making such a radical change in its smallpox regulations, but it expected the support of the medical profession on apparently such a logical procedure. Strange to say, there were not only prominent physicians, but certain sanitarians, who criticized the board's action. The board still thinks it was right, and trusts that other state boards will follow its example.

Abstract of Discussion.

Dr. George W. Webster, Chicago: If a smallpox patient is isolated, but the nurse and family come in contact with the patient, and are allowed to come and go as they please, are they not as great a menace to the public as the patient, after he has partly convalesced?

Dr. G. B. Lake, Wolcottville, Ind.: I am a member from a country district where this smallpox matter has been agitated. We have had several smallpox epidemics, and this question has been largely talked over among us. In towns where the quarantine has been enforced very strictly it has been a decided burden, because when a family, no matter in how good circumstances it may be, is quarantined for smallpox, and the bread-winner compelled to refrain from his necessary labor, the general understanding is that that family must be supported, not simply with the necessities of life, but also with any luxuries to which its members may feel themselves entitled. A person of mature years who refuses to be vaccinated absolutely deserves no sympathy, and I believe that the cutting off of the quarantine laws with regard to smallpox will be the quickest and surest way of educating the people in the necessity of vaccination.

Dr. J. N. Hurty, Indianapolis: I endorse every word Dr. Bracken has said. There is not the slightest need of having smallpox. It is an indictment of the intelligence of a community for it to have the disease. There is only one prophylaxis for smallpox. Quarantine does not amount to a hill of beans. If a single patient comes into a community where smallpox has not been prevailing, isolation of that patient will probably stop the spread of the disease. If the disease gets started, as it did in Indiana, quarantine amounts to nothing. I am only sorry that we have a statute, which the board of health cannot change, which requires that smallpox be quarantined. That is a useless expense. Down in our mining regions they love to be quarantined. If told that vaccination will protect them, the people will reply that they would rather have the disease than be vaccinated. The reason is that they will have a chance to lie around at home, with support furnished, for a while. They will run the risk of death, for they see that smallpox causes very few deaths. They care little for the inconvenience. It is in vain to tell them that we, being vaccinated, are not afraid of it, cannot be attacked by it, can live with it—eat it, if we want to—or do as Dr. Brayton did, who inoculated himself with it over and over again, and carried the sore on his arm three months by inoculation to demonstrate that he could not have it. All this has no effect. What is the use of quarantine to control epidemic smallpox? Let those that want it have it. I regret that the Indiana statute which compels us to quarantine smallpox is repealable only by legislative act. On the Monon Road to Indianapolis, in Carroll County, are about two hundred cases along Wild Cat Creek, some very severe. We just let them alone. They will never have it again. The health officer of Sullivan County took his thoroughly vaccinated child with him when he went to see cases, to demonstrate to the people

of Sullivan County how to go free from smallpox. Of course, neither father nor son contracted the disease, because they were successfully vaccinated. Even such demonstrations do little good. I endorse Dr. Bracken's contentions.

Dr. Heman Spalding, Chicago: It is immoral to advise that everyone be allowed to get smallpox who wants it. One might as well let a man commit suicide because he wants to do so. Quarantine, of course, is secondary. Vaccination is an absolute preventive; if everybody can be induced to believe that and act on it, there will be no more smallpox. In Oskaloosa, Iowa, I made such a statement before the City Council. A member of the Council said: "Let's go right out and get them all vaccinated." I said he might start out and try it; it would take one thousand to vaccinate another thousand. It is necessary to quarantine and isolate. Right out of Dr. Bracken's and Dr. Hurty's back doors smallpox patients are coming to Chicago all the time. It cost us $100 to take care of patients that Dr. Bracken has failed to quarantine in Minnesota, and the same is true of Dr. Hurty's state. We have four cases of smallpox in Chicago now, one from Montana, another from Tennessee, all four from outside of the city. Nearly all our cases are imported. We have this city so well vaccinated that smallpox patients can enter a car or hotel or any place here, and, out of 500 people they meet, only one or two will be infected. Vaccination stands first, quarantine second. Quarantine cannot be dropped under the present condition of affairs. I do not approve the method of Minnesota. It has made me turn gray this winter. We have had more trouble with that state than any other. Dakota is doing the same thing, and we have three or four cases from there. I am absolutely opposed to Dr. Bracken's paper as it stands.

Dr. C. F. Williams, Columbia, S.C.: I think that Dr. Bracken is on the right line. I do not think, however, that exposed individuals should be allowed to run at large unless vaccinated. I agree with him that the shotgun quarantine does harm instead of good, for when such a measure is instituted, cases are going to be concealed which otherwise would be reported. When the breadearner is shut up it becomes necessary to feed his family, and in a very widespread epidemic it is not long until the city or county treasury is so depleted that a howl goes up from this quarter, resulting, as a rule, in antagonism against those trying to control the disease. In South Carolina we have a compulsory vaccination law. As soon as one develops the disease, patient and attendant are isolated, and all the occupants of the house and those exposed vaccinated. The occupants are then allowed to go in and out, just as though nothing had happened. The public is warned by a sign, bearing the words, "Contagious Disease Here," which is

placed by the entrance to the house. When the case is dismissed by the attending physician the house is thoroughly disinfected. By this means we have been able to control the disease, and in very few instances has a second case occurred.

Dr. H. M. Bracken, Minneapolis: In answer to Dr. Webster's question, we allow the vaccinated to go to and from placarded houses. That is exactly in line with the teaching of Dr. Chapin's paper this morning, and with the position taken by Dr. White yesterday. Dr. Gorgas says that the sick man is the great transmitter of disease. It is not the healthy individual who spreads smallpox; it is the sick, and we want to impress this fact, not only on the laity, but also on members of the medical profession. I admit that there is a possibility of transmission by a second to a third party, but that possibility is so slight that we can ignore it, and not do any great harm in the community. We certainly can do more good by advising people that they must protect themselves by vaccination than by giving them the idea that we are going to protect them by quarantine. Dr. Spaulding says that smallpox is coming into this city from Minnesota. If that is so, the Chicago Department of Health is not doing its duty. Dr. Evans was in Minnesota a short time ago, and took the position that if Minnesota wanted to have smallpox it ought to have the privilege, but that it was a question if outsiders should not quarantine against the state. I wrote to Dr. Evans, at that time, urging him to advise me of every case of smallpox found in Chicago from Minnesota. At that time he advised me of one case. We sent an inspector at once to the place in Minnesota from which this patient went, and found smallpox patients not properly looked after. These patients were at once placed under proper control. We have not had notice of a single case of smallpox in Chicago from Minnesota since that time.—*Journal of the A.M.A.*

RUPTURE OF THE UTERUS, WITH A REPORT OF THREE CASES*

BY FRANK C. HAMMOND, M.D.

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One of the most dangerous complications of labor is rupture of the uterus. The fetal mortality varies from 90 to 95 per cent., and the maternal mortality is very high, the latter, according to Ivanoff,[1] 79 per cent. at the Moscow Maternity (covering a period of twenty-five years). The statistics of Merz give a maternal mortality of 62 per cent., which is based on a study of 230 cases from the literature.

In a general way rupture of the uterus may be said to occur once in every 1,500 to 2,000 labors. It occurs more frequently in multiparæ than in primiparæ—according to Bandl, 88 to 120. Jolly in 573 cases states that in 376 the rupture was spontaneous, while in 196 cases it was traumatic.

The etiological factors in causing rupture of the uterus are usually divided into maternal, fetal, and those incident to intervention, as version, forceps, etc. Among the causes may be mentioned multiparity; the uterine muscle may lack resistance; there may be strong uterine contractions, but the cervix is unable to dilate properly; there may be sufficient obstacle to delivery, and the cervix is caught by the ascending part so that it cannot ascend, and thus tears through; atrophy of the uterine musculature, either congenital or acquired; edema of the lower segment of the uterus from compression by the presenting part; alteration in the elastic tissue; fatty degeneration; cicatrices; malformations; attrition; neglected shoulder presentation; hydrocephalus; the improper use of ergot; version, and the application of forceps.

The treatment of rupture of the uterus may be either conservative or operative, the former consisting of the uterine gauze pack, and the latter simple suture, supravaginal hysterectomy, and panhysterectomy.

Dorland[2] quotes Klein, who gives 56 per cent. recovery by operative methods, and Kolomenkin, who gives 53 per cent. recovery by operation (but excluding cases of laparotomy and suture, 64 per cent.). Schmidt[3] reports 83 cases treated by packing, with a mortality of 43 per cent., and 32 by laparotomy, with a mortality of 75 per cent. In Klein's statistics the mortality in non-

* Read before the Obstetrical Society of Philadelphia, June, 1908.

operative cases was 39 per cent., while in those operated upon it was 44 per cent. Varnier[4] states that out of 11 cases in his experience treated by packing 10 died, whereas 3 out of 6 operated on died; 6 others dying before operative methods could be instituted. In rupture of the uterus through the Cesarian cicatrix, in a study of 20 cases, Brodhead[5] gives the mortality as 15 per cent., which is astonishing when compared with the mortality of ruptures of the uterus in general. In 12 of these cases hysterectomy was done, in 7 simple suture, and in one case death occurred within a few minutes after the abdominal incision was made.

If rupture has occurred and the fetus is still in the uterus, it is deemed best to deliver promptly by the vagina; but if the child has already escaped into the abdominal cavity, a laparotomy should be done immediately, and followed after removal of the fetus and placenta either by suture of the tear, supravaginal hysterectomy, or panhysterectomy. The same surgical principles are applicable in those cases which are not seen until after the delivery has occurred per vaginam, and the rupture not recognized until subsequent to birth.

Owing to the difficulty of determining the extent of the tear, the amount of hemorrhage, and the impossibility to predict whether or not packing will control the hemorrhage, or, if it does, whether it will be permanent, a study of the literature leads me to believe that the best results will be obtained by abdominal section.

If the rupture is recent and clean-cut, preference should be given to suture. If there is necrosis, the wound jagged, or infection present, then hysterectomy would be the operation of choice. Border-line cases will, of course, present the greatest difficulties in determining whether to suture or resort to a radical procedure. The condition of the patient, the skill of the operator, and the surroundings of the patient are factors which are to be considered. When one is not an expert in abdominal surgery, and the patient's condition is not good, preference should be give to suture.

Dorland quotes ten cases of rupture of the uterus in which suture was done, with one death; five of the nine women who recovered after suture subsequently became pregnant. "These figures, which indicate a mortality of only 10 per cent. after suture, and the successful termination of pregnancy in five cases, certainly indicate that the plan of treatment by suture is eminently successful, and therefore should as a rule be advocated."

In the three cases below reported, two were multiparas; one was treated by packing and died before operative methods could be instituted; in the second, supravaginal hysterectomy was done; and in the third case simple suture was employed. In two instances the rupture was caused by hydrocephalus, and in the

remaining case by delivery of the after-coming head incident to version. Two of the patients died.

Case 1.—A. R., colored, married, about forty years of age, IV-para. About ten years ago I was sent for by Dr. I. R. Landis, to see this patient with him. I was at Oak Lane at the time, and when I arrived at the patient's house two hours had elapsed. Fearing that I would be detained longer, he called in Dr. W. Wayne Babcock, who preceded me by a few minutes. We found that the child had been delivered, with the exception of the after-coming head. The patient was in deep shock, and her mental condition flighty. A diagnosis was made of hydrocephalus, the fetal skull perforated, a quantity of fluid evacuated, and the head delivered. The placenta was then expressed by Credé's method, but it did not appear in the vagina, although the placenta was distinctly felt to leave the uterus. A hand was then passed into the uterus, fearing that rupture had occurred, and the right lateral wall from the cervix nearly to the fundus was found torn through. The examining hand was then passed partly through the rent, when the margin of the placenta was detected, the placenta being well up towards the liver. The placenta was seized and very easily removed. Peterson[6] states: "After delivery of the fetus the placenta should be expressed immediately to allow the uterus to contract and control hemorrhage. Rarely the placenta will escape into the abdominal cavity, where nothing but laparotomy can effect its delivery." Although the placenta in this case was partly under the liver, absolutely no difficulty was experienced in its removal. The pulse rapidly increased in rate, and progressively lost in volume. The uterus was packed with gauze, as firmly as possible with such a large rent, and preparations made for suture, but death supervened before this could be accomplished.

Case 2.—I am indebted to Dr. Wilmer Krusen for the privilege of reporting this case. On April 13, 1907, Dr. Krusen was sent for to see this patient in consultation with the family physician, but as he was detained at the Samaritan Hospital at the time, he very kindly asked me to go in his stead. The patient was a II-para, thirty-five years of age, who had been in active labor about three days. The head had refused to engage during this period, and from what I could ascertain at the time the os had been fully dilated for a number of hours. On the day I saw her she had collapsed on two occasions, from each of which she reacted under stimulation. These attacks of syncope had been attributed to simple exhaustion incident to a prolonged labor. The pulse was rapid and weak, and the patient's condition one of shock. A diagnosis of hydrocephalus was made. The fetal head was perforated through the anterior fontanel and a quantity of fluid evacuated. As the bones of the head collapsed a hand

was passed into the uterine cavity to ascertain if rupture had occurred, because the history strongly pointed to concealed hemorrhage. A rupture of the uterus was detected on the left side extending from the cervix to midway between the internal os and the fundus of the uterus; there was in addition a lateral tear extending from the above tear posteriorly following the attachment of the vagina possibly half-way round. The woman was hurried to the Samaritan Hospital, where Dr. Krusen immediately opened the abdomen, delivered the fetus and placenta, and did a rapid supravaginal hysterectomy. The fetus had partly pushed through the opening in the uterus, and thus had apparently controlled the hemorrhage throughout the greater part of the vertical tear. The abdomen was found filled with free blood and clots. The operation was done about six in the evening, and the patient died about 11 o'clock the next morning. The temperature did not go above 97 deg. F. at any time, and during the last twelve hours it was impossible to count the pulse-rate. Eight hours previous to death she began vomiting a black fluid, which continued to the end.

Case 3.—B.T., twenty years of age, married one year; the last menstrual period occurred February 28, 1907. Confinement was expected about December 25, 1907. I was called to see her by the attending physician, Dr. Mervyn Ross Taylor, December 6, 1907. Premonitory pains began about one week previously. When I saw her she was in active labor, the os being fully dilated, but the head would not engage. Maternal pelvic measurements normal. Ether was given, and after a faithful trial with forceps Dr. Taylor found that the head could only be partially engaged. I suggested version, which he asked me to do. This was accomplished within the usual time one would expect in a primipara. The body was easily delivered, but the greatest amount of difficulty was experienced in the delivery of the after-coming head, which could only be brought down in the left oblique diameter, occipitoanterior. In "sweeping" the head out of the pelvis the suboccipitobregmatic diameter appeared to be unusually long. The fetus was dead before version was attempted. Following the delivery of the head there was more bleeding than one would usually expect, and the mother's pulse increased in rapidity and decreased in volume. The placenta was immediately expressed by Credé's method, and although the uterus felt normally contracted the bleeding continued. Upon investigation to find the cause of the hemorrhage, a rupture was found in the left lateral wall of the uterus, extending about one-third of the way to the fundus of the contracted uterus. There was also a complete laceration of the pelvic floor. The ambulance was called and the patient hurried to the Samaritan Hospital. While waiting for

the ambulance, and not having sufficient gauze to pack the uterus, this organ was held tightly compressed by the bimanual method, which procedure apparently controlled the hemorrhage for the time being. I opened the abdomen immediately upon her arrival at the hospital, and closed the rent with interrupted sutures of chromic catgut No. 1. She was on the operating table less than half an hour and required a great deal of stimulation. The lacerated sphincter ani muscle was quickly brought together with a few sutures, and the patient returned to bed with a pulse of 160, temperature 97.4 deg., and respiration 36. She made a slow convalescence, complicated with a phlebitis in the left leg. This patient left the hospital on the thirty-fifth day, with a very slight lameness in the left leg, full control of the bowel, and her physical condition good. In this case I feel confident the rupture did not occur during the performance of version, but in the delivery of an abnormally large after-coming head, about which the lower uterine segment held very closely and apparently would not sufficiently relax to allow the head to glide out.

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—*The Therapeutic Gazette.*

THE SPHERE OF THE TRAINED NURSE

BY W. A. NEWMAN DORLAND, M.D.

THERE is one matter on which I desire to speak a few words. I refer to the recent movement for the State registration of nurses. Let me state at the outstart that I do not think the time is ripe yet for such a movement on the part of the nursing fraternity. He would be a bold man who would venture to assert what might be twenty, ten, or even five years from now; but to-day it remains true that the finger of public opinion points unequivocally away from such a procedure as this. It is a wise policy on the part of any individual or body of individuals to keep a finger on the public pulse and be guided by it. Foolish, indeed, is he who blindly or perversely moves contrary to the popular mind. Sound the views of the level-headed in the community, if you will, and

you will find, if I mistake not, a strong feeling permeating all the social strata antagonistic to anything which savors of trade-unionism among the learned professions, including the nursing fraternity. The medical profession as a whole is opposed to State registration of nurses in any form. The feeling, however, is not confined to the medical men by any means.

The Honorable William N. Ashman, president judge of the Orphans' Court of this city, who six years ago delivered the address before this school, while speaking on this subject has said: "It has been urged by some of the friends of the proposed law" (the State law for licensing and registering nurses) "that to meet the demand of people of moderate income for skilled nursing will lower the rate of compensation, since the average citizen and the poor have not deep purses. This seems to indicate that the real reason for appealing to the legislature is not a question of the welfare of humanity, but a matter of dollars and cents. The public good cannot be held in abeyance for the sake of private gain. Civilization has advanced too far to admit of the capitalization of the sufferings of humanity. The interests of the sick man were safeguarded when the State licensed and appointed the physician as the absolute authority in the sick-room. When two generals with equal authority attempt to manipulate the same army, the battle is generally lost." Such is the opinion of an eminent jurist of the land.

The distinguished professor of medicine in Cornell University, Dr. W. Gilman Thompson, for whom I entertain the profoundest respect and admiration, has recently said (*New York Medical Journal*, April 28th, 1906): We are in the hands to-day in this State (the State of New York) of a nurses' trust. There is no more real need of State examination and registration of nurses than for the examination and registration of a group of persons employed in any one of the liberal arts." He then proceeds to add, as a further protest against the injustice of the whole matter, that the "unfortunate patient is compelled to pay the same rate for the poorest nurse that is demanded for the best, and that patients of moderate means must pay the high price for a nurse or do without."

It will not be necessary for me to quote further from the views of men of distinction in their chosen professions. I have read the criticisms of many of the medical men of this State upon the proposed act. They all sounded no uncertain note. Many of them were most amusing, and some were more positive than polite. As I have intimated throughout this address, I am heartily in favor of fair play for every one, including the nurse. I believe, therefore, that such an act as that which has been contemplated in various States of the Union authorizing the State registration of

nurses is unfair to every one, including the nurse; that it is unwise at the present time and in view of the recognized trend of public opinion; that it is contrary to the humane spirit which is supposed to actuate those engaged in alleviating the sufferings of mankind, and that it is uncalled for from whatever point of view it may be regarded. Thus do I publicly place myself on record, and I appeal to you all to give the matter careful and judicious consideration before you endorse a movement that, should it be carried, will, I fear, work a lasting injury to the noble profession of nursing.—*The Therapeutic Gazette.*

THE EDUCATION OF THE MEDICAL STUDENT.

The scientific and technical education of the medical student is a subject of perennial interest not only to teachers but also to practitioners, who for a good many years past have bitterly complained that the newly-admitted man, though legally qualified, is imperfectly trained for the actual every-day work of the profession. The course of the discussion in the Section of Physiology at Sheffield was naturally influenced by the recent issue of new regulations for the medical curriculum by the University of London. These regulations were given in the *Journal* of July 25, when some of the considerations raised were discussed, but in the speeches of Professor Starling and Sir Felix Semon the reasons and motives of those who have brought about the change are given with some fulness. The problem, however, is not in any way peculiar to the University of London, and the solution which it has proposed is therefore of general interest.

Professor Starling's main proposition is that the whole of the student's science studies, preliminary or intermediate, should "be built up with his clinical training into one compact scientific fabric —the science of man and his diseases." The student must have a grasp of the principles of chemistry and physics, and to comprehend these principles he must be made acquainted with certain classes of facts which illustrate their nature; the facts are so many that a selection must be made, and there is no good reason why the illustrative facts should not have a direct physiological bearing. There is no special sanctity about the chemistry of the metals, nor any such deep gulf between the chemistry of the compounds of carbon and the compounds of other elements as the chemical Tories have digged. So with physics; its principles cannot be taught perhaps as a part of physiology, but they can be taught with reference to the problems presented by the body of man; if this is to be done, however, the unintelligent domination of the pedantic mathematician must be overthrown.

Again, with regard to biology, Professor Starling would have the teaching of botany and zoölogy, from the morphological side, as ends in themselves, frankly abandoned; it is indeed extraordinary that such a conception of the place of these subjects in the medical curriculum should be entertained or defended. The instruction given to medical students in them should bear on general biological problems, so that the time allotted to biology may serve as an elementary introduction to the science of life which is the true study of the aspirant in medicine. The medical student should be taken quickly to the point where man himself can be used to illustrate the principles of biology. The intentions of the teachers of zoölogy and botany have been excellent, but the detail has been overdone. They have taught and have required at examination too many facts, whereas they ought to have been content with the very honorable office of introducing the student to general principles, remembering that the whole curriculum is really a carefully adjusted course in biology, and that the study of zoölogy is of value to one entering on such a course only because its problems and methods are simpler, and therefore a useful means of breaking in the mind to the biological way of thinking.

With regard to physics and chemistry, at least, there remains the question whether the kind of elementary knowledge contemplated ought not to be obtained before entering a medical school. Dr. Buist urged that not only these two subjects but biology also should be entirely preliminary to the recognized medical course. To many who take the general view expressed by Professor Starling it will seem that the objections to letting the future medical student get his elementary biology at school are stronger than those which can be brought against the application of a like method to the other two subjects.

It is justly complained that not only the preliminary but the intermediate subjects are being taught in water-tight compartments, and the extreme significance of the new move of the University of London is that it makes a courageous attempt to remedy an evil which has been growing for a generation, to the dismay of those engaged in the actual practice of medicine and anxious for its advance as a science and as an art.

The system upon which human anatomy is commonly taught is a survival, with many aggravations, of a condition of medical science which came into existence generations ago when the present extent and complexity of the other branches of the institutes of medicine were undreamed of. Professor Sherrington said, in the course of his interesting contribution to the discussion, that the teaching of anatomy in a lecture theatre was a relic of the middle ages, and the statement is literally true. Yet it is only now that we see any serious effort made to reform it; the Uni-

versity of London has indeed reformed it altogether by allowing demonstrations wholly to replace systematic lectures. The lecture theatre course is wasteful of time, not only directly, but indirectly, for it has encouraged a kind of anatomical pedantry which has been a serious stumbling-block to the more eager and intelligent type of student, destroying his spirit by the immense calls made upon his memory. The tedious old-fashioned anatomy which exacts a minute knowledge of the markings on bones, so that the student shall be able to recognize and place a wrist bone with his eyes shut; which insists on a name for every little arterial branch, which, as Professor Starling said, the surgeon is satisfied to pick up and tie when it bleeds; which demands a minute acquaintance with the connections of many of the ganglia and the cranial and spinal nerves, the meaning of which neurologists have not yet discovered, while slurring the anatomy and relations of the great viscera and habitually ignoring function, must give way to a more enlightened and scientific spirit. Physiology also must be taught with a more intelligent appreciation of its supreme importance in the outfit of the practitioner of medicine. The subject is so immense, the accumulation of facts so huge, that selection is necessary, and it is surely reasonable to ask with Professor Starling that "knowledge shall be imparted in direct proportion as it bears on the treatment of disease in man."

Sir Felix Semon's speech was to some extent complementary to Professor Starling's, for he dwelt on the fact that the University of London, in the reformed regulations for the medical curriculum adopted last month, had endeavored to apply the new principles, and he pointed with pardonable pride to the circumstance that these principles had been very fully stated by him in his address at Manchester last October. These principles are, reduction of the length of the period devoted to the preliminary and intermediate subjects, greater consideration in the teaching and examination at these stages for the practical needs of the future medical man, and an extension of the time devoted to clinical subjects. Theoretically, these ends might have been attained without adding to the prescribed facts, but the bolder and wiser course has been taken of recognizing the fact that the mean length of the medical curriculum is already in practice about seven years. The prescribed curriculum for the university's medical degree has been made five and a half years, and, as Sir Felix Semon justly contended, it is reasonable to hope that the reform in the method of teaching the preliminary and intermediate subjects may result in a shortening of the actual as contrasted with the theoretical length of the curriculum. We are, therefore, not prepared to support the appeal made by Dr. Leonard Hill, in a letter published this week (p. 439), that the decision to extend the length of the

final part of the curriculum should be rescinded. On the showing of the statistics he himself quotes, 84 per cent. of those who graduate M.B. already spend thirty-three or thirty-four months or more in their final stage, and it is very difficult to accept the view that the extension of this period to thirty-six months can really be so serious a blow to the London medical schools as he would have us believe.

Professor Starling, while claiming, as we venture to think most justly, that the remodelled course of the University of London is a move in the right direction, laments that, being the result of a compromise, or a series of compromises, it is not ideal, and sees very clearly that its success will depend on the good-will of the teachers of the preliminary and intermediate subjects. This is no doubt true, but Sir Felix Semon made the important addition that the examiners also must generously enter into the spirit of the new regulations. From the context we may gather that he has a reasonable hope that they will, and it may be that the creation of boards of examiners will tend to diminish the more glaring eccentricities for which so many of the examiners employed by the university have earned an unenviable reputation in the past.—*Editorial in the British Medical Journal.*

LONDON LETTER.

BY J. CHARLTON BRISCOE, M.D.

The autumn session, the beginning of the medical year, is now in full swing, and the new students, for whom "Boyhood's a dream of the past for me," are getting acclimated to their new surroundings. It is a great change for the young man, throwing off the shackles of school life and becoming his own master. Left to his own devices the student in his first year, as a general rule, does not work particularly hard, but spends a considerable time in learning to smoke and in attending theatres, thus gaining a certain amount of useful experience. The town-bred boy has possibly passed through this stage during the school holiday times, but they are novelties to his country cousin. London as a medical school differs from the older universities of Oxford and Cambridge, in that the undergraduates are not so much under the control of the authorities. It is quite exceptional in London to see a young man in cap and gown, and if one should be seen probably he is a member of some faculty other than the medical, whereas in the older universities cap and gown are the rule during certain

hours of the day and evening. This absence of academic dress confers the greatest possible freedom on the student after college hours. He has also to learn the pleasures of living "in digs," and his experiences of landladies and fellow-lodgers are varied and instructive. The London landlady is not so bad as she has been painted, and although there are some distinctly unpleasant persons among them, the average is much above the type depicted in the time of Bob Sawyer. Many have been domestic servants or people who have descended in the social scale, and having settled down to housekeeping, make their lodgers very comfortable, and in some cases even take a motherly interest in their welfare and success. Happy is the man who happens to light on an experienced cook. There is one vice which is common to all—logorrhea—and it is the hardest thing in the world to get the landlady out of the room in a reasonable time, without being actually rude. No doubt the student who lives at home is the best off as regards his material comforts, but home-life is not conducive to work, or compatible with the more intimate friendships which are formed among fellow resident collegiates. It is a matter for regret that, in London, there is not sufficient college accommodation to house all the students.

There is always a considerable degree of rivalry between the various London medical schools, of which there are four large and six smaller ones, and especially is this so as regards the relative entries of new students. The examinations for scholarships and exhibitions are held by common consent late in September or quite early in October, and the days are so arranged that the examinations are held simultaneously. Formerly a competitor might go round the different schools trying his luck, and in some cases one man might obtain awards at several schools and would then accept the most valuable. This state of affairs was obviously very undesirable and delayed the announcement of success or otherwise to the candidates; and it was to meet this difficulty that the above-mentioned arrangement was made. It rather spoils the young man's last school summer holiday to have to spend several hours a day reading, or as he would call it, "swotting for an exam.," especially as he has probably had to work harder than usual in the last term in order to pass some of the higher educational examinations.

The athletic side of the young medico is not neglected in London, and not long after the commencement of the winter session the captains of the football teams will be looking out for likely recruits, and the new man will be asked to play in a trial game or to take the place of an absentee. Mr. A. N. Other, whose name so frequently figures in the list of a team, is the common pseudonym adopted by some sporting student who hap-

pens to be afflicted with stern and unreasonable or nervous parents, and who has been forbidden to play, or who ought to have been at a lecture and has determined to "cut" it. During the first three years the athletic man can get a game twice a week, on Wednesdays and Saturdays, and matches are arranged against various teams. Of these, the fixtures most sought after are those against the Asylums on the Asylum ground. The game is always keen, for the attendants are frequently selected for prowess in some special department, be it music or sports, an excellent repast is provided, as well as the luxury of an after-football hot bath, and somehow or other it usually happens that the chief medical officer is himself a keen sportsman and takes infinite trouble to see that his guests have a good time. What matter if the return journey is somewhat lively! At the end of the third year, when regular hospital work has replaced college lectures and demonstrations, the surgical dresser or the physician's clerk is unable to get away, except on very special occasions, such as an inter-hospital cup tie, unless he is able to persuade some one else to do his work. On this account Saturday afternoon appointments are not particularly sought after. Athletics take a prominent position in student life. At each medical school the autumn session is the occasion for the reading of an inaugural address, followed by the distribution of prizes obtained in the preceding year. One of the senior members of the profession, or some other person of note in the educational world, delivers the address and presents the prizes, and in the evening is the principal guest at the Old Students' dinner. This is also an annual function, and is attended by former collegiates from far and near. For many it is the only occasion on which London is revisited, and affords an opportunity for renewing old friendships and for retailing old yarns. Speeches are usually few in number and characterized by brevity. Unless the speaker is possessed of a penetrating voice he is not likely to be heard, for by general consent the evening is given up to conversation.

October 31st saw the close of the Franco-British Exhibition. It has undoubtedly been a great success, and everywhere in London groups of French people were to be met, especially during the months of August and September. The Tube railways have been crowded with them, and it is almost a standing joke that there are more French than English direction placards posted in the subways. Apparently most of these visitors do not stay more than twelve hours, spend most of that time at the Exhibition, and do not benefit the large shop-keeping class at all. There was only some slight attempt at a disturbance on the last evening, which as usual was attributed to the medical student, but this accusation

was refuted by Mr. Sydney Holland, the chairman of the London Hospital, in a letter to some of the daily papers.

A short time ago some letters appeared in one of the lay papers decrying the statues which have been placed on the new buildings of the British Medical Association. The offices of the Association, which are situated in the Strand at the corner of Agar Street, not far from Charing Cross Station, have been rebuilt in a light gray stone, and on the level of the second story some eight or ten statues, in half relief, have been placed. They are meant to represent various phases of the medical art, and are mostly nude or semi-nude figures. It is these which have excited the comments of some of the writers. The figures are well done and are by a well-known artist, though on account, perhaps, of the height at which they are placed it is somewhat difficult to recognize the precise meaning. They are, however, not obtrusive, and the agitation has died down, and there is no sign of any preparation for their removal, so we must conclude that they will remain with us.

We have to regret the loss of a distinguished medical man in the person of Mr. Treves. The prosperity of Margate, mainly owing to its reputation for the successful treatment of early tuberculous lesions, was largely due to him. During the latter part of his career Mr. Treves chiefly confined himself to the practice of surgery, and had a great reputation for success in such conditions as tuberculous glands and bone disease. The London Hospital has also felt the loss of one of our most promising young surgeons, Mr. Harold Barnard, who died early in August. He was a most energetic surgeon, a keen sportsman, and was getting well known through his excellent scientific writings. He was, conjointly with Dr. Leonard Hill, the inventor of the well-known instrument for estimating blood-pressure.—*Therapeutic Gazette.*

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Editorials.

THOUGHTS ABOUT THE REVISION OF THE UNITED STATES PHARMACOPEIA.

The existence of legal standards for medicinal agents in the United States is of immense importance to pharmacy in that country. It is satisfactory to know that, by the passage of the Food and Drugs Act, June 30, 1906, the Congress of the United

States provided that the pharmacopeial committee of revision should give their final acceptance and establishment of a standard for any drug or drug product included in the pharmacopeia. Any article, therefore, recognized by the United States pharmacopeia which deviates from the standard set by this authority is improper, unsafe, and dangerous for medicinal purposes, except in respect to drug products which are used in the manufacture of articles subsequently standardized, or for the manufacture of certain definite principles, such as strychnine, which is extracted from nux vomica. A drug product which is forbidden to be sold, or the sale of which is restricted in the country in which it is manufactured, or from which it is exported, will also be refused admission into the United States.

Since the enactment of this law the standards and methods of the United States pharmacopeia have been critically examined and tested, and, as an outcome of the work done by the committee of revision, many important changes have been made in the book. The close criticism of skilled pharmacists has resulted, and will certainly result, in the elimination of articles used in drug manufacture which are imperfect or impure, so that in future only articles of tried and approved quality will be admitted as crude material for drug manufacture by the United States pharmacopeia. To physicians it is clear that if a preparation made from a crude drug of fine quality possesses definite therapeutic qualities, one made from a crude drug of inferior quality cannot be expected to possess equal therapeutic powers. For instance, the leaves of digitalis purpurea, collected from plants of the second year's growth, possess therapeutic powers which do not reside in leaves of the first year's growth, and in the making of pharmaceutical preparations of digitalis, drug manufacturers in the United States will be restricted to the use of digitalis leaves collected from plants of the second year's growth. A physician in the United States who prescribes a digitalis preparation does so on the basis of a therapeutically efficient drug, and it is the business of the United States pharmacopeia to see that he gets what he prescribes.

In the small scope of an editorial little can be advanced except a summary of impressions regarding the pharmacopeia such as naturally present themselves to the mind of a practitioner. Primarily, a pharmacopeia should be a book containing

a list of medicines and compounds and the manner of preparing them, together with the weights and measures by which they are to be prepared and mixed, and such other matter and things as relate thereto. What drugs and preparations of drugs shall be included in the pharmacopeia and what shall be excluded must cause much debate. Should room be found between its covers for all the drugs or preparations used by all the physicians of the country, or should the preferences of medical authorities be chiefly consulted? Though clinicians are by no means infallible, and some of them may even have been convicted of grave errors in the use of remedies, we think that only drugs of tried and proved therapeutic properties should be admitted into the pharmacopeia. If the regular physicians of the United States would agree among themselves to prescribe only drugs producing definite physiologic effects and to exclude all other preparations except as vehicles or for corrective purposes, the United States pharmacopeia would speedily respond to the innovation. The pharmacopeia would then become a small, readable volume, containing descriptions of the properties, doses, etc., of selected drugs or preparations; drugs having similar properties to the selected ones would be omitted, and a working knowledge of the pharmacopeia would not be a difficult accomplishment for students of medicine. A more accurate knowledge of pharmacy would obtain among pharmacists; a genuine knowledge of drug therapeutics would be more widely diffused among physicians. The prescribing of pharmacopeial preparations would be more generally done, and, incidentally, more thoughtful clinical work would precede and follow the prescribing of drugs intended to meet special indications.

If, on the other hand, the pharmaceutic preferences of all the physicians in the United States are to be included in the book, the pharmacopeia will contain descriptions of drugs which are of little interest except to such persons as are employed in marketing them or handling them for purposes of trade or manufacture.

We think that physicians in the United States, while placing a merited reliance on present-day pharmaceutical preparations, will leave the pharmacopeia to the pharmacist. Some physicians, like the pharmacists, may study therapeutics in the dispensatory—a conglomerate of pharmacy and therapeutics. For what they should know about the appearance, taste, and odor of drugs, the

most effective methods of disguising preparations, dosage, the best methods of administration, frequency of repetition of dose, etc., physicians will probably continue to consult works on materia medica and therapeutics. J. J. C.

IS THE NON-HOSPITAL DOCTOR UNFAIRLY DEALT WITH BY THE TORONTO HOSPITALS?

Practitioners of medicine in Toronto, for the purpose of this editorial, may be placed in two categories—the hospital class and the non-hospital class; or, in other words, the visiting staffs of hospitals and those who are not members of hospital staffs. The latter contend that they are unfairly dealt with, the principal complaints being that patients belonging to them, who pay only 70 cents a day (city order or otherwise), are transferred to the staff physicians; that their other patients, paying over 70 cents a day (private and semi-private patients), are obliged to pay consultation fees to the hospital surgeons.

Patients paying 70 cents a day ($4.90 per week), or who enter the Toronto General Hospital on a city order, are not required to pay any fee for attendance to any member of the hospital staff. It is altogether unlikely, therefore, that such patients would be willing to pay an outside physician for medical services rendered them during their stay in the hospital, or that they would be able to do so; and, as it is not to be supposed that the non-hospital physician would attend to such cases gratuitously, he is not treated unfairly when the 70 cents patient is taken from him and handed over to a member of the hospital staff. A similar method of dealing with poor patients is followed in St. Michael's Hospital, Grace Hospital, and the Western Hospital.

The Toronto General Hospital has four sets of wards—private, semi-private, semi-public, and public. The rule regulating public ward patients has been already mentioned. Patients in private or semi-private wards in the Toronto General Hospital may have their own physicians. In the semi-public wards of the Toronto General Hospital patients are charged $1 a day. They are allowed to have their own physician, and may receive friends at any hour during the day. If a patient is admitted to

a private, semi-private, or semi-public ward and is placed under the care of one of the members of the hospital staff, instead of his own outside physician, he is liable to a fee for medical attendance. Similar rules are observed in the other three city hospitals. In reference to surgical cases the following rule is to be observed at the Toronto General Hospital: "Surgeons of recognized ability, not members of the staff, desiring to perform operations, may do so on private, semi-private, and semi-public patients, with the consent of the superintendent and the approval of the head, or of one of the heads, of the department concerned." Presumably a consultation fee should be paid to the hospital surgeon, just as a fee should be paid to a consultant if an operation were done in private practice. It is certainly right and proper that a consultation should be held prior to the performance of any important operation, and the fact that the head, or one of the heads, of the hospital department concerned must be consulted cannot be considered a grievance by the non-hospital surgeon. Similar rules obtain in the other city hospitals in regard to surgical operations. Replying, therefore, to the question at the head of this editorial, it would seem that, in reference to the complaints referred to, the non-hospital doctor is not unfairly treated by the Toronto hospitals. There are, however, other aspects of the case which deserve consideration.

It is quite true that hospital men have become a distinct class, enjoying better opportunities to get patients and earn fees than outsiders. It is also true, on the other hand, that, as specialists and teachers, their knowledge of the work to be done is more exact than that possessed by outsiders, and they possess higher claims to public patronage.

Apart, however, from the merits of hospital physicians, the Toronto people, for purely domestic or other non-medical reasons, prefer to send their sick to the hospitals instead of having them attended to at home. A generation ago, or even less, it was quite the other way; then even necessitous persons were with difficulty induced to enter the public wards of the Toronto General Hospital, and the private wards of that institution were often untenanted for considerable periods of time. Very few empty private, semi-private, or semi-public wards are to be found in any of the Toronto hospitals to-day; in fact, so enamored are the Toronto

people of hospitals that they have just voted a grant of $50,000 apiece to St. Michael's Hospital, the Western Hospital, Grace Hospital, and the Home for Incurables. The non-hospital practitioner in Toronto has fallen upon evil days; but his misfortunes are largely traceable to a public preference for hospitals, instead of private dwellings, in the treatment of the sick.

Perhaps if the practice of medicine were regarded by all physicians as a stewardship, instead of as a living, or, in some instances, a source of wealth and emolument, the sense of deprivation and loss felt by the non-hospital men in Toronto would be less acute. Whether this assumption be well founded or not, 'tis a working-day world, my masters, and the battle for medical superiority should be to the strong; the race, whether by *concours* or otherwise, to the swift. The University of Toronto is the people's university, and neither "pull," sect, nor affiliation should push any physician into a chair to teach medicine to university students or place him on a hospital staff to exercise privileges in Toronto hospitals. J. J. C.

EDITORIAL NOTES.

The Causation of Pneumonia.—That epidemics of pneumonia may occur in solitary buildings (barracks, tenement houses, institutions, etc.) cannot be successfully denied, and we may attribute these outbreaks to defects in the local sanitary conditions. It has also been observed that house epidemics of pneumonia occur. Dr. Anders reports that, in the winter of 1894 he saw three cases in rapid succession in one family. A sister of charity, after nursing two of the patients for a period of ten days, was also attacked, and died of the disease. An instructive epidemic is reported by W. B. Rodman, who states that "118 cases of pneumonia, with 25 deaths, occurred in a prison population of 735." Under the heading "Meteorologic Conditions in the Causation of Lobar Pneumonia, *Amer. Med.*, Sept. 1, 1904, Dr. Anders says: "My own analysis of the monthly mortality list, covering the decade from 1894 to 1903, inclusive, for Philadelphia, gave the following numerical order: January, 4,210; February, 3,717; March, 3,496; April, 3,039; December, 2,860; May, 2,238; November, 1,936; October, 1,269; June, 1,165; July, 913; September, 826;

August, 800." The Chicago Health Department (Dec. 5, 1908) reports that "pneumonia has finally taken first place in order of highest mortality, a position it will probably hold until well into the spring months. . . . Between Dec. 5 and the middle of April it is quite probable that upwards of 2,000 Chicagoans will succumb to this preventable disease. . . . We expect fewer pneumonia deaths this winter because the people now understand what they must do to avoid this disease. They know that the best way to prevent pneumonia is to avoid impure air. Improvement in the practice of ventilation is very noticeable." A desire for better air may also account for the fact that a good many men and boys ride on the street car platforms. They are wise, for the air in a full car is malodorous, and may provoke the inhalation of the micrococcus lanceolatus.

The Danger of Shoddy Clothing.—Shoddy is a very inferior material, made of the fibre of old, used woollen goods, mixed with the fresh wool, with which it is woven. The manufacturers do not introduce any more fresh wool than is absolutely necessary. Large quantities of shoddy woollens are exported from England to Canada, and these goods are in considerable demand, owing to their cheapness and smooth appearance. So successfully do these goods appeal to the eye and the pocket of the Canadian purchaser that he prefers them to the more expensive Canadian woollens, which are made of clean, new wool. Even in England, however, there is a fear that the use of garments made from shoddy is injurious to the health of the wearers, and a special article on that aspect of the shoddy industry appeared in *The Medical Press and Circular*, Nov. 18, 1908. One has only to consider the nature of the material from which shoddy is manufactured and the process by which it is made to see that there is some justification for the belief that shoddy goods are infected with disease. Disused garments of various kinds and other articles, wholly or in part composed of wool, are disintegrated by machinery, after which the resultant fibres are mixed with a certain proportion of new wool, from which fresh material is woven. The worn garments, etc., are subjected to certain cleansing operations, but to no process of disinfection. Hence, there is always the possibility that the recreated garments made from them may harbor the germs of tuberculosis and other diseases, with possible injury to their

wearers. It should also be remembered that not outer garments only, but woollen materials in general, are used in the manufacture of shoddy, so that the danger is thereby considerably increased. If this matter is deemed to be of sufficient moment, English manufacturers exporting shoddy to Canada should be obliged to furnish a guarantee that the used materials from which their product is made, prior to its manufacture into shoddy, had been submitted to a process of disinfection satisfactory to the English Home Office.

The Mortality in Ontario for 1906.—The Registrar-General's report shows that the deaths in Ontario for 1906 (estimated population 2,214,116) were 32,782, which gives a rate of 14.8 per thousand. The infant mortality under 5 years of age was almost one-third of this, the figures being: Total mortality, 32,782; infant mortality, under 5 years of age, 10,085. By far the greater part of this infant mortality occurred in infants under 1 year, viz., 8,403 deaths. Two large factors in this infant mortality under 1 year were: Congenital debility and malformations, 2,774; still-births, 1,538. Infantile diarrhea and gastro-enteritis caused 1,570 deaths at this age period; convulsions, 313 deaths; pneumonia, 292 deaths; broncho-pneumonia, 118 deaths; tuberculosis and scrofula, 251 deaths; meningitis, 166 deaths; whooping cough, 155 deaths; acute bronchitis, 153 deaths. At the other end of the line of life, from 60-69, 3,381 persons died; from 70-79, 4,323 persons died; from 80 and over, 3,706 persons died; in all, 11,410 aged persons died. If we add together the mortality rates of the extremes of life in Ontario in 1906, we find: Under 1 year, 8,405 deaths; from 60 to 80 and over, 11,410; total, 19,815—over 60 per cent. of the total mortality of the province for the year 1906—a reassuring prospect, indeed! True it is, that no loss of life should be minimized; sound health in parents should ensure vitality in their offspring; isolation of the contagiously sick should prevent communicable diseases; careful dieting should do away with the holocaust of gastro-enteritis. But, even should these and other conditions and practices become ideal, a large mortality among infants under 1 year of age may be accepted as usual and inevitable. Is it worth while striving to live to be an octogenarian? When a man or woman has reached 60 years of age and over, life's work is done; death needs no

apology. The great number of deaths at advanced ages in Ontario in 1906 showed that many of the inhabitants belonged to long-lived families. In Ontario a good climate, enforced sanitary laws, and a wide diffusion of prosperity among the people help to foster longevity.

Dysbasia Angiosclerotica (intermittent limp, from induration of the walls of the vessels), caused by excessive smoking.—Erb, in 1904, showed that of 38 men who suffered from dysbasia angiosclerotica (intermittent limp) 10 were heavy smokers and 15 were enormously heavy smokers; so that 25 smoked to excess out of a total of 38. In 14 of these cases excessive smoking was the sole etiological factor; all other causes, such as syphilis, alcohol, diabetes, etc., being excluded. Simon records a case of dysbasia angiosclerotica in a man aged 64, who had not had any severe strain, had not been unduly exposed to the weather, had led a quiet life, had not had syphilis nor any serious illness except cecitis eight years previously, but who had smoked thirty strong cigarettes daily since the age of 19; he had inhaled and swallowed the smoke. The patient complained of heaviness and weakness in the legs, headache and cardiac disturbances. The radial arteries were hard, tortuous, and sclerosed, and the pulse was of high tension. The heart was not dilated; the second aortic sound was accentuated; pulsation in both arteries of the left foot was entirely absent, and was absent in the posterior tibial, and only feebly present in the dorsalis pedis of the right foot. Evidence of this nature shows that the excessive use of tobacco excites arterio-sclerosis in the arteries of the legs, and thus causes intermittent limp. It is true that many heavy smokers are not affected in this way, but their escape from arterio-sclerosis does not prove that other heavy smokers will be equally fortunate. Some families display a tendency to arterial sclerosis. If such a tendency exists, it is undoubtedly developed by the abuse of tobacco.

The Treatment of Acute Appendicitis, as it Comes Under the Care of the General Practitioner.—In an article published in the December number of the *Medical Review*, London, James Phillips, F.R.C.S., Edin., from the viewpoint of treatment, divides cases of appendicitis into three classes: (1) Mild cases, in which there is tenderness over McBurney's point, but neither a "lump" nor the muscular rigidity characteristic of acute peritonitis; (2)

more severe cases, characterized by a firm, definite, more or less irregular lump; and (3) cases in which there is evidence of acute peritonitis, without the "lump," which indicates that the inflammation is well localized. In two or three days the typical mild case will clear up under "rest, starvation, and morphine," and removal in the quiescent period will have to be considered. More serious cases, characterized by the presence of a firm, definite more or less irregular "lump" in the right iliac fossa are not to be regarded too gravely; in fact, the presence of the "lump" indicates that there is firm matting of the intestines around the inflamed appendix, and that, even if pus is present, there is no immediate danger of its bursting into the general peritoneal cavity. In cases of this class immediate operation is not necessary; operation may be done when the "lump" has disappeared. In the third class of cases, in which there is diffused purulent appendicitis, the general aspect of the patient helps the diagnostician; the patient always has a distressed and "poisoned" appearance. Mr. Phillips describes a condition of the abdomen, which is pathognomonic of diffused purulent peri-appendicitis, and which, if allowed to go on, will result in generalized peritonitis. After describing the signs of a general peritonitis, he says: "If, however, the pus is confined to the region of the appendix, and is only threatening to generalize, observation will show slight movement, at any rate, in the epigastric region, and sometimes also in the left half of the abdomen. If the surgeon's warmed hand is placed on the epigastrium, care being taken not to exert any pressure, the rectus abdominis will be found to give slightly with each respiration. Carry the hand down over the left rectus to the pubes, and the same slight movement will be observed. Now glide the hand back to the epigastrium (it should not be raised from the abdominal wall) and down the right side of the abdomen. When the appendix region is reached, if pus is present the segment (not the whole muscle) of the rectus abdominis over the appendix will be found to be firmly contracted and boardlike." Gentleness should be exercised in seeking for this sign; if found, immediate operation should be done. With regard to the details of the operation, no advice is given, unless it be, to quote Murphy's phrase, "Get in quick and get out quicker." Mr. Phillips is opposed to the washing out of appendiceal abscess, and mentions

English operators (Dudgeon and Shattock) who have furnished experimental proof of its harmfulness, while Morton, of Bristol, and others have published series of cases successfully treated by swab-cleansing only. J. J. C.

PERSONAL.

Dr. Wishart, who has been lately appointed Chief of the Ear, Nose and Throat Department of the Toronto General Hospital, has on that account resigned his position as Chief of that Department in the Hospital for Sick Children, which has devolved upon his junior in the service, Dr. Geoffrey Boyd. Dr. Wishart has been elected a member of the Royal Society of Medicine, England.

ITEMS OF INTEREST.

A Gift from Sir William MacDonald.—Sir William MacDonald of Montreal has done some great things, of which the greatest, of course, is the creation of the Macdonald College at Ste. Anne de Bellevue. His latest benefaction is characteristic of the man, showing his far-sighted determination to do what will have great results, even if the act itself seems comparatively modest. He is sending a copy of "The Letters of Queen Victoria," just published in popular form by the King's command, to nearly 1,000 rural schools in the Province of Quebec. He rightly considers that the inspiration and information contained in that extraordinary work will act like seed of the finest quality, sown first in the teacher's mind, passed on by the teacher in a form which children can receive.

The Canadian Medical Exchange for the purchase and sale of medical practices and property, conducted by Dr. Hamill, medical broker, wishes to remind physicians who desire to make a change that the present season is a good time to list their offers with him, as probably more medical sales are made during January and February than any other months in the year. Prospective medical purchasers can secure the list of practices for sale simply by agreeing to treating everything as confidential and acting honorably. For the past fourteen years a large percentage of all the medical sales made in Canada have been conducted through this exchange, and we believe it offers a short-cut for either vendor or vendee to secure the goal desired.

The Physician's Library.

BOOK REVIEWS.

Surgery: Its Principles and Practice. In five volumes. By 66 eminent surgeons. Edited by W. W. KEEN, M.D., LL.D., Hon. F.R.C.S., Eng. and Edin., emeritus professor of the principles of surgery and of clinical surgery, Jefferson Medical College, Philadelphia. Volume IV. Octavo of 1,194 pages, with 562 text illustrations and 9 colored plates. Philadelphia and London: W. B. Saunders Company, 1908. Agents for Canada: J. A. Carveth & Co., Limited, Toronto. Per volume: Cloth, $7 net; half morocco, $8 net.

The contents of Volume IV. are: Hernia, Chapter LIII., by William B. Coley, M.D.; Surgery of the Rectum and Anus, Chapter LIV., by Robert Abbe, M.D.; Examination of the Urine in Relation to Surgical Measures, Chapter LV., by David L. Edsall, M.D.; Surgery of the Kidney, the Ureter, and the Suprarenal Gland, Chapter LVI., by Joseph Ransohoff, M.D., F.R.C.S., Eng.; Surgery of the Bladder, Chapter LVII., by Bransford Lewis, M.D.; Stone in the Bladder, Chapter LVII., by Arthur Tracy Cabot, M.D.; Surgery of the Prostate, Chapter LIX., by Hugh H. Young, M.D.; Surgery of the Penis and Urethra, Chapter LX., by Orville Horwitz, M.D.; Surgery of the Scrotum, Testicle, Spermatic Cord, and Seminal Vesicles, Chapter LXI., by Arthur Dean Bevan, M.D.; Surgery of the Intestines, but Excluding the Appendix, the Rectum and the Anus; Surgery of the Omentum and Mesentery, Chapter LXII., by Wilbur Van Hook, M.D., and Allan B. Kanavel, M.D.; Surgery of the Appendix Vermiformis, Chapter LXIII., by John B. Murphy, M.D.; Surgery of the Ear, Chapter LXIV., by Edward Bradford Dench, M.D.; Surgery of the Eye, Chapter LXV., by George E. de Schweinitz, M.D.; Military Surgery, Chapter LXVI., by General Robert M. O'Reilly, M.D.; Naval Surgery, Chapter LXVI., by Surgeon-General P. M. Rixey, U. S. Navy; Tropical Surgery, Chapter LXVIII., by Walter D. McCaw, M.D.; The Influence of Race, Sex, and Age in Surgical Affections, Chapter LXIX., by William M. Rodman, M.D.; and the Index. Each of these monographs is, of itself, worthy of close study. No general review can give an adequate exposition of the labor expended or the talent

shown in the composition of these chapters; the bibliography at the end of each chapter tells part of the tale. The text is carefully constructed, showing, with the opinions of the writer, the best and newest work of other authors and operators of renown, home and foreign. Numerous lifelike illustrations are scattered through the volume. Although the writers are many, yet in passing from one chapter to another one is scarcely conscious of the fact. Dr. Keen has good reason to be gratified at the success of his collaborators in helping to produce this monumental work. J. J. C.

Diseases of the Heart. Nothnagel's Encyclopedia of Practical Medicine. By Prof. Th. v. Jurgension, of Tubingen, Prof. L. v. Schrotter, of Vienna, and Prof. L. Krehl, of Greifswald. Edited with additions by George Dock, M.D., Professor of Theory and Practice of Medicine and Clinical Medicine, University of Michigan, Ann Arbor. Authorized Translation from the German, under the Editorial Supervision of Alfred Stengel, M.D., Professor of Clinical Medicine in the University of Pennsylvania. Philadelphia and London: W. B. Saunders Company. 1908.

This is the last of the twelve volumes of this system. As a whole the work is excellent and quite the equal of any of the preceding volumes. To the English reader it gives a clear account of the status of German work on diseases of the heart, which none could present better than the authors of this volume.

The work is too large for it to be possible to present anything like a critical review of its contents. The translation has been very well done, and the additions by the editor are valuable. The work will prove of great value to all desiring the fullest information on cardiac pathology and treatment. The work is presented in a manner creditable to the publishers. A. M'P.

The Doctor in Art. Twenty-five reproductions of world-famous masterpieces. Edited with Authentic Text by Charles Wells Moulton. Buffalo: The Douglas Publishing Co.

It has afforded us a good deal of pleasure to look carefully over this work. It is indeed a credit to both the editor and the publishers. It consists of a number of beautiful reproductions of some well-known masterpieces, the whole making an album worthy of a prominent place in any physician's library. Amongst the pictures are "The Doctor," by Luke Fildes; "The Village Doctor," by David Teniers; "The Doctor's Visit," by Jan Steen; "La Malada Imaginaire," by Abraham Solomon, "The Anxious Moment," by B. Vantier; "The Village Doctor," by Heywood

Hardy; "A Bribe," by A. Burrington; "Worn Out," by Thomas Faed; "A Prayer for Health," by J. T. Peele; "Attending the Doctor," by J. G. Vibert; "The Quack Doctor," by T. W. Wood; "An Accident," by P. A. J. Dagnan-Bouveret; "The Visit to the Hospital," by Jean Geoffrou; "A Visit to the Hospital," by Luis Jiminez; "Spoonful Every Hour," by Ph. Fleischer; "Playing at Doctors," by F. D. Hardy; "Vaccinating the Baby," by Ed. Hamman; "Mamma's Head Nurse," by James Hayllar; "The Sisters," by L. Alma-Tadema; "Convalescent," by Julia B. Folkard; "The Coming of Spring," by Eichstaedt; "A Serious Case," by H. Roseland; "A High-Toned Patient," by F. Hall; "The Amateur Surgeon," by A. Graves; "The Doctor," by A. Marie. W. A. Y.

Diseases of the Skin and the Eruptive Fevers.—By Jay Frank Schamberg, M.D. Professor of Dermatology and Infectious Eruptive Diseases in the Philadelphia Polyclinic and College for Graduates in Medicine. Octavo of 534 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, $3.00 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

This is a most excellent work for students and busy practitioners as the various diseases are arranged in such a way that they can be readily referred to. The book is especially strong in treatment, the author giving many valuable formulae for prescriptions. The chapter on X-ray and light treatment is very instructive, and the writer's experience with serum treatment is interesting.

A new feature of this book is the thorough way in which the Infectious Eruptive Diseases have been presented, which must prove of great benefit to all physicians. D. K. S.

Scientific Laboratory Help in Diagnosis. A little book for the guidance of the general practitioner and the specialist, showing the usefulness and advantage of the laboratory report. The Abbott Alkaloidal Company, Chicago, Ill., 1908.

We have read this booklet with a good deal of pleasure, and feel that the publishers will find a considerable demand for it on the part of the profession, as also on the part of the fourth-year student. During the last few years the importance of the work done in the clinical laboratory has been discovered, and to-day it is almost impossible to attempt to make a correct diagnosis without using the facilities of the laboratory. Bacteriology and microscopy have so advanced during the past decade that a student need hardly attempt to graduate without having made a minute study

of the human body in health and disease. This booklet will be found to be filled with the most accurate information, and any practitioner who does not receive a copy should address the publishers and, we have no doubt, will receive one by return mail.

A Manual of Surgery for Students and Practitioners. By WILLIAM ROSE, F.R.C.S., Emeritus Professor of Surgery, King's College, London, and ALBERT CARLESS, F.R.C.S., Professor of Surgery, King's College, and Surgeon to King's College Hospital, London. Seventh edition. 1908. London: Balliere, Tindall & Cox. Toronto: J. A. Carveth & Co.

When within the limits of a single decade seven large editions of a work on surgery are called for, such an endorsation raises it clear above the level of ordinary review. Recognition of the value of this book came promptly when its first edition was issued. With each subsequent revision it has been kept in touch with the progress of surgical science and art, and to-day it is accepted as the best one-volume exponent of surgery as practised in Greater Britain. Its authors have the happy faculty of saying a great deal that is important in the fewest possible words consistent with clearness of expression.

To an eminent lawyer across the line the question of preventing accidents at level crossings was once submitted. His advice was condensed into three words and his fee expanded to $3,000. It read, "Stop! Look! Listen!" To-day we read these words from car windows and have to admit that the fee was well earned. In similar fashion we credit Rose and Carless with having deserved all the success that has come to them for the production of the best manual of surgery which a student or physician can obtain, and which is not too large to be read and re-read. N. A. P.

A Manual of Clinical Diagnosis. By JAMES CAMPBELL TODD, M.D., Associate Professor of Pathology, Denver and Gross College of Medicine, Denver. 12mo of 319 pages, with 131 text illustrations and 10 colored plates. Philadelphia and London: W. B. Saunders Company. 1908. Flexible leather, $2.00 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

This is a volume of 280 pages, containing a most useful mass of information regarding methods of laboratory diagnosis. The methods described are simple, and the apparatus described includes only two instruments that are at all costly or complicated—the hemocytometer and the microscope. Besides the usual sections on blood, urine, sputum and gastric contents, there are chapters on the feces and animal parasites, as well as a miscellaneous section dealing with the examination of pus, peritoneal, pleural, pericardial and

cerebro-spinal fluids, syphilitic material and milk. An appendix describing the apparatus and giving formulae of the reagents used is completed by a well-arranged index. The ilustrations are sufficient in number and are all good, but they have the fault common to nearly all works of this kind—the degree of magnification is not mentioned, excepting in a few instances, when plates of microscopical findings are shown. The discussions are nowhere so full as in Emerson, Simon or Sahli, but perhaps for that very reason the manual will be found more useful in the every-day clinical work of the general practitioner. The book can be honestly recommended to students of the senior years, as the teaching is up-to-date and the style is simple and direct. The only objection particularly noticed was the direction to secure blood for examination from the pulp of the finger. There seems to be no reason for selecting this part for the needle puncture, when equally vascular and much less sensitive areas are available. M. H. V. C.

The Red Year. A story of the Indian Mutiny. By Louis Tracy, author of "The Wings of the Morning," "The Pillar of Light," "The Captain of the Kansas," etc. Toronto: McLeod & Allen, publishers, 1908.

This is beyond question Tracy's most important story—a story of the horrors of the Indian Mutiny, with its many fanatic tragedies and heart-rending cruelties. The author has interwoven a love story, which is most interesting, and cannot but add another tribute to his already great reputation as a writer.

An Index of Treatment.—By various writers. Edited by Robert Hutchison, M.D., F.R.C.P. Physician to the London Hospital, and Assistant Physician to the Hospital for Silk Children, Great Ormond St.; and H. Stansfield Collier, F.R.C.S., Surgeon to St. Mary's Hospital, Joint Lecturer on Surgery in St. Mary's Hospital Medical School, Surgeon to the Hospital for Sick Children, Great Ormond St. Bristol: John Wright & Co. London: Simpkin, Marshall. Hamilton: Kent & Co., Limited. New York: William Wood & Co. 1908.

The editors of this book are certainly not puffed up with the idea that they have covered every possible ailment; they seem even to think that they may have omitted something of importance, but after carefully reading the book one is forced to say that practically nothing has been omitted.

This book is what its title implies, and it provides the practitioner with a guide to treatment up-to-date and in such a concise form that it is of much value. Very properly, space has not been wasted by giving to the reader a great variety of forms of treat-

ment; the treatment laid down here is the best treatment in the opinion of the writer of the article on any particular subject, and this is what the busy practitioner wants. He does not consult a book of this kind for the purpose of learning all the forms of treatment that have been used in the last hundred years for the cure of a certain malady; he wants particularly to see if there is anything recommended by a good authority that he does not already know.

Treatment of disease is a matter which in the present day seems to engage so little attention from a large number of the more modern highly scientific practitioners that it is a relief to find that improvements in medical treatment are still going on.

As a book of reference and as a book which contains the best of all that has been written on this subject up to the present day this book holds first place. The list of contributors contains the names of many of the best men that the world knows, names which of themselves give one an idea of what the book must be.

Ophthalmic Surgery. A Handbook of the Surgical Operations on the Eyeball and Its Appendages. By Dr. Josef Meller, First Assistant University Eye Clinic, Vienna. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1908.

To Dr. Walter L. Pyle, himself an opthalmologist of repute, we owe this translation. The methods described are those followed in the clinic of Fuchs by Meller himself. From personal experience, we can say that it is by all odds the most satisfactory method we have yet tried. The cataract operation is described with the operator sitting to the right of the patient. It is a question whether this is as satisfactory as the English method of standing behind the patient. Aside from such points as these, this is a most satisfactory book. The illustrations are good, the text is not only well printed but also well written; every detail of the operations described is thoroughly gone into. The limitation to the practice of the Vienna School keeps the work within reasonable size. J. M.

By Their Fruits. A novel, by Mrs. Campbell Praed, author of "Christina Chard," "The Other Mrs. Jacobs," "Myria," "My Australian Girlhood," "Nadine," etc., with a frontispiece by Charles Pears. London, Paris, New York, Toronto, and Melbourne: Cassell & Co., Limited, 1908.

Are all women what their husbands make them? This is a question which has often been asked, and more often answered in the affirmative; but heredity is a great factor in influencing life. "By their fruits shall ye know them." This is the story of an erring wife, whose pathetic appeal is very touching when she says: "Oh! I have been wicked, I know; but how can I condemn one who has been born without a soul? And for our mothers' sake I

plead—in our mothers' arms. Give me back the protection of my husband. I need it. Was it my fault that my mother gave me too much of her own nature that I have suffered so much?" A good story; read it.

Tuberculosis in Infancy and Childhood. By various writers. Edited by T. N. Kelynack, M.D., M.R.C.P., Hon. Physician to the Infants' Hospital, Westminster, and the Mount Vernon Hospital for Consumption and Diseases of the Chest, etc. Demy 8vo; illustrations 27; pages xiii.-376. London: Bailière, Tindall & Cox. Canadian Agents, J. A. Carveth & Co., Limited, Toronto. Price, $3.75. 1908.

This work is not an ordinary treatise upon the subject, but is rather a collection of studies, written by many well-known men co-operating with the editor of the *British Journal of Tuberculosis.* The number of this journal for July, 1907, was devoted to a consideration of tuberculosis in infancy and childhood. The widespread interest and attention aroused has resulted in the volume we are now considering. We cannot give the list of forty-one contributors, representing English, Continental, American and Canadian opinion, including such names as Calmette, Emmet Holt, Nietner, Squire, A. H. Tubby, R. W. Philip, W. R. Huggard, J. A. Coutts, Harry Campbell, J. H. Sequeira, Harold Barwell, K. F. Andvord and others.

Not only are pathology and treatment considered, but much space is devoted to the study of the disease in various countries. There are eight special chapters on the occurrence of the disease and the problems presented by it in Scotland, Ireland, France, Norway, New Zealand and other countries. London school children are given a chapter. School hygiene and medical inspection is also dealt with.

The disease in its relation to the various organs of the body is discussed by men who are well-known experts. These chapters are not filled with detail, yet they deal practically with the morbid process and its treatment, though the book throughout tends to deal with the whole subject along lines of prevention rather than treatment. The editor states the purpose of the volume to be "to afford a reliable and scientific basis on which practical measures may be established for the prevention and arrest of all forms of tuberculosis occurring in infancy and childhood."

Some minor criticisms might be made. In the article on tuberculosis of the eye, ophthalmo-reaction is given as a means, still *sub judice,* of diagnosis, yet without a word of warning as to its possible dangers, which we know to be very grave in tuberculous affections of the eye. Von Pirquet's reaction is mentioned several times, but the technique is not described. Clive Riviere's excel-

lent chapter on the tuberculins would be of much more use to the general practitioner if his directions for the administration of tuberculin by the clinical method were more detailed. There can be no excuse for the appearance of such a glaring misprint as "Prudeau," on page 296, and repeated in the index.

Dr. A. D. Blackader, of Montreal, contributes the chapter on the use of medicaments. It is well written, but would be improved if dosage were considered.

It is a most readable book, well printed, and contents so arranged that one has to do no unnecessary reading to find the subject matter required. We heartily recommend it, and trust it will find many readers. J. H. E.

International Clinics, Volume III., Eighteenth Series, is fully up to its predecessors, and well sustains the high standard thus far maintained by the editor, W. T. Langcope, M.D., of Philadelphia, and his distinguished staff of collaborators, among whom are our own Prof. McPhedran, of Toronto University, Prof. Osler, of Oxford, John H. Musson, of Philadelphia, and Chas. H. Mayo of Rochester. *International Clinics* is published by the J. B. Lippincott Co.

The articles are arranged in sections such as Treatment, Medicine, Surgery, Gynecology, Pediatrics, Orthopedics, Psychiatry, Pathology, etc., and each paper brings the very latest thought of that particular subject.

It would not be possible to review fully these papers. A few of the titles to give one an idea of the scope of the volume are: "Sciatica—Its Nature and Treatment," by Sir Dyce Duckworth; "Two Cases of Tetanus Treated with Cholesterin, with Recovery," by Drs. Almagia and Mendes, of Rome; "Perforation of the Intestine in Typhoid Fever," by Dr. Scott, of University of Pennsylvania; "The Value of Esophagoscopy," by M. Ginsee, of Paris; "Malignant Disease of the Liver and Spleen," by John M. Swan, of Philadelphia. In Orthopedics there is a very able discussion on "Cleft Palate and Hare Lip," by Dr. F. N. G. Starr. The publication of this paper marks an epoch in the treatment of these disfiguring and pitiful conditions. Dr. Starr boldly advocates a radical change, and instead of waiting until the little sufferers are five or six years of age and the resultant defects are established, he would operate early, within a few days or weeks. His arguments are convincing and his results have been good. He also exhibits an aluminum splint for cleft palate. In the treatment of hare lip he would apply no dressing. To the reviewer it would appear that some such dressing as subiodide of bismuth would be an advantage and could not be objectionable.

In Surgery. "The Modern Treatment of Fractures by Means

of Direct Internal Splintage," by E. M. Corner, F.R.C.S., of St. Thomas Hospital, arrests our attention. In this article Mr. Corner treats the subject of fractures very fully. He sets a very high standard as the ultimate result in the treatment of fractures. Is it necessary that every fracture should show a perfect skiagraphic picture? Are we justified in creating simple fractures into compound ones and introducing a foreign body alongside the fracture in order to attain this object? About this there may be considerable diversity of opinion. J. N. E. B.

Obstetrics for Nurses. By JOSEPH B. DELEE, M.D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. Third revised edition. 12mo of 512 pages, fully illustrated. Cloth, $2.50 net. Philadelphia and London: W. B Saunders Company. 1908. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

It seems to be a very short time since the second edition of Dr. DeLee's book reached us, and the mere fact of the third edition being already published goes to show that the book has found a ready market. This volume was written originally for nurses; but with the additions found the work becomes sufficiently extensive to be used also by medical students and physicians.

The work is divided into three parts and an appendix. It really consists of two main subjects, namely, obstetrics for nurses and the actual obstetric nursing, "the author having sought to combine them, so that the relations of one to the other might be natural."

The illustrations are exceedingly good, and, we understand, were made expressly for this work. The book is the result of nearly ten years' lecturing to nurses, and we can heartily recommend it to our readers. W. A. Y.

Taber's Pocket Encyclopedic Medical Dictionary. Edited by CLARENCE W. TABER, author of "Taber's Medical Dictionary for Nurses," "The Secret of Sex," co-author of "Eales' and Taber's Anatomical and Physiological Chart," associate editor the late Nicholas Senn, M.D., Ph.D., LL.D., C.M. Chicago: C. W. Taber, publisher.

To readers who are satisfied with a pocket medical dictionary, this work offers advantages, as it is a handy epitome of medical information, a cyclopedia and a dictionary combined. It is a physician's edition, and might be occasionally useful to the surgeon, specialist, or general practitioner of medicine. In addition to the ordinary vocabulary, important subjects are defined in an encyclopedic manner. The work is cross-indexed. There are a few illustrations, 418 pages, flexible black leather, gold stamping, gilt edges, $1.50. J. J. C.

Pathological Technique. Including Directions for the Performance of Autopsies and for Clinical Diagnosis by Laboratory Methods. By F. B. MALLORY, M.D., Associate Professor of Pathology, Harvard Medical School, and J. H. WRIGHT, M.D., Director of the Pathological Laboratory, Massachusetts General Hospital. Fourth Revised Edition. Octavo of 480 pages, illustrated. Cloth, $3.00 net. Philadelphia and London: W. B. Saunders Company. 1908. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

The above work has become a "standard" in pathological technique, and its fourth edition having been carefully revised in order to keep apace of the times, fully justifies its previous good reputation. The general scheme of the book has not been altered, but we notice some improvements and additions, as Zinsser's anairobic method for plate cultures, and three new methods for the cultivation of typhoid bacillus. The subject of actinomycosis has been entirely re-written to accord with recent investigation on this disease.

In Part III. we find the following additions: Weigert's iron hematoxylin stain for nuclei; improvements in methods for staining fibroglia, myoglia and neuroglia fibrils; Best's stain for glycogen, and Sir A. E. Wright's method of preparing bacterial vaccines.

The size of the book is increased in the present edition by about 50 pages, and contains 152 excellent illustrations. W. H. P.

Medical Gynecology. By S. Wyllis Bandler, M.D., Adjunct Professor of Diseases of Women, New York Post-Graduate Medical School and Hospital. Octavo of 675 pages, with 135 original illustrations. Philadelphia and London; W. B. Saunders Company, 1908. Cloth, $5.00 net; Half Morocco, $6.50 net. Philadelphia, London, W. B. Saunders Company. Canadian Agents: J. A. Carveth & Co., Limited, Toronto.

Of late years so much has been said and written on the surgical diseases of women, that a book dealing with these same diseases from a medical standpoint only, is one that naturally claims our attention. Many of us, perhaps, have come to feel that there is only one treatment for diseases of women, and that a surgical treatment. Surgery is always brilliant when its results are satisfactory: in fact, surgery has been so much talked of in the management of diseases of women that many of us know that even women themselves are in many instances afraid of consulting a medical man for fear he should at once suggest an operation. Now the writer of this book takes a wholly different view of his subject, and this is the view which the man who is not the expert surgeon should know all about. This work gives the general practitioner an idea of what he can do with many diseases of women in his own consulting

room. To many this will be a matter of the very greatest consequence. The book is very nicely gotten up; the type is good; the articles are well written, are comprehensive, and describe every form of treatment up to the point where in some cases an operation as we all know is necessary, and there it stops, for at this point the case passes into the hands of the expert surgeon.

A Manual of Bacteriology. By HERBERT U. WILLIAMS, M.D., Professor of Pathology and Bacteriology, Medical Department University of Buffalo. Revised by B. Meade Bolton, M.D., Washington, D.C., one time Associate in Bacteriology, Johns Hopkins University, Chief of the Bureau of Health Laboratory, Philadelphia, Pa.; Professor of Pathology and Bacteriology, University of Missouri; Bacteriologist, Bureau of Animal Industry, etc. With 113 illustrations. Fifth edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1909.

This manual, designed primarily for medical students, has reached its fifth edition with very few additions; some obsolete matter has been omitted and some new material added.

The hygienic examination of milk and water has been practically re-written, and considerably expanded. The chapters on disinfectants and antiseptics have undergone alterations as a result of recent investigations on this subject. We notice also that the index has been much enlarged and the references are fuller and more specific.

We can recommend this manual to students and physicians who do not wish to delve too deeply, as, in the smallest possible space, it contains facts which we must know and which it is desirable that we should know. W. H. P.

Practical Life Insurance Examinations.—With Chapter on the Insurance of Substandard Lives, by Murray Elliott Ramsey, M.D. Philadelphia and London, J. B. Lippincott Company, 1908.

This is a book that every medical practitioner whose duty it is to examine an applicant for life insurance will do well to read; and not alone the medical examiner, but the general practitioner will find this a very convenient little book to have at hand; many difficulties are so simplified that the reader wonders that he has never come across anything of this kind at an earlier date. For instance: "the chest measure should not be less than one-half of the height"; then again, "the difference between inspiration and expiration should not be less than one-tenth of the maximum chest measure."

The auscultation of the chest is very good and very simple.

The heart areas are reduced to four—aortic, pulmonary, tricuspid and mitral—and the heart murmurs are described under the

area in which they are loudest, and consequently in which the diseased valve is. The reader in this matter is led on so gradually that any one who really wishes to learn how to diagnose heart trouble will hardly go astray.

The examination of the abdomen is made very simple from the fact that this region also is divided into four areas with a description of diagnosis by inspection and palpation of all the abdominal organs.

The portion of the book dealing with urinalysis is simple and practical, and the points contained in the last chapter on sub-standard lives will if followed out make a medical examiner of more than usual assistance to the medical director.

A Handbook of Suggestive Therapeutics, Applied Hypnotism, Psychic Science. By HENRY S. MUNRO, M.D., Americus, Ga. Second Edition. C. V. Mosby. St. Louis: Medical Book and Publishing Company. 1908.

To those students of psychic science who are following the advancement of hypnotic and suggestive therapeutics, this second edition will be of use. It is more complete, and new material, the evolution of steady work, has been added, which makes the edition the most recent of its kind. A. J. H.

Spectacles and Eyeglasses. Their Forms, Mounting and Proper Adjustment. By R. J. PHILLIPS, M.D., late Adjunct Professor of Diseases of the Eye, Philadelphia Polyclinic. Fourth edition, revised, with 56 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut St. 1908.

The proper adjustment of spectacles and eyeglasses is a much more important matter than generally supposed. The most thorough work of the oculist may be completely nullified by the carelessness of the optician. The practitioner who takes any interest in this subject will find in this little book all the necessary information. This fourth edition has been brought up to date and is all that can be desired. J. M.

Genito-Urinary Diseases and Syphilis. By EDGAR G. BALLENGER, M.D., Lecturer on Genito-Urinary Diseases, Syphilis and Urinalysis, Atlanta School of Medicine; Editor *Journal-Record of Medicine;* Genito-Urinary Surgeon to Presbyterian Hospital, Atlanta, Ga. With 86 illustrations. Atlanta, Ga.: E. W. Allen & Co. 1908.

There is no doubt that what the author claims, namely, that the medical student frequently finds the want of a small, practical work giving the diagnosis, treatment, etc., of genito-urinary dis-

eases, without the necessity of his purchasing a larger book, exists After glancing over Dr. Ballenger's book, we think that he has succeeded in giving the reader the fundamental principles of this subject, without entering into such details as are more or less unnecessary. The work has evidently been based on a study of the most recent literature upon this subject, and will, doubtless, be of value, not alone to the student, but to the general practitioner.

W. A. Y.

General Pathology. By Dr. Ernst Ziegler, Professor of Pathological Anatomy and General Pathology in the University of Freiburg in Breisgau. Translated from the eleventh revised German edition. (Gustav Fischer, Jena, 1905.) Edited and brought up to date by Aldred Scott Warthin, Ph.D., M.D., Professor of Pathology and Director of the Pathological Laboratory in the University of Michigan, Ann Arbor, Michigan. With 604 illustrations, in black and in colors. New York: William Wood & Co. 1908.

I can only say of this great work that it is still the best work to-day for the pathological student. Written by a teacher in a classical way, it has always appealed very strongly to me, both during my student life and at present as a practitioner. It has always a place before me among my great friends. Every care has been taken to keep this edition abreast of this progressive age, and I am sure that this edition will find its usual place in every physician's library.

A. J. H.

The C. F. Birtman Catalogue.—Anyone interested in electrotherapeutic apparatus should write to the C. F. Birtman Company, 152 East Lake Street, Chicago, Ill. This firm has just lately issued the twelfth edition of their catalogue, and it is certainly worthy of perusal. By referring to page lxi of this issue of the *Journal* further particulars can be secured as to the Birtman goods.

Saunders' Illustrated Catalogue.—For this edition our catalogue has been subjected to a most thorough revision, incorporating some twenty-five new books and new editions. The colored plate from Keen's new Surgery, replacing the one inserted in the last edition, and the colored illustration of the *spirochaeta pallida* as stained by the method of Levaditi—illustrating the announcement of Jordan's General Bacteriology—in themselves give the catalogue a real value. Printed in two colors on a high-grade India-tint paper and handsomely bound, this edition is truly an *edition de luxe.*

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Original Contributions.

THE NEUROTIC AFFECTIONS OF THE RESPIRATORY SYSTEM.*

BY A. R. GORDON, M.D., TORONTO.

Mr. Chairman and Gentlemen,—My purpose in presenting this paper is two-fold, first to discuss briefly this class of respiratory disease as a type distinct which perhaps has not received the general attention which its importance demands; and second, to emphasize the possibility, I will not say probability, of these neurotic conditions becoming an important element in the inflammatory diseases of the respiratory tract.

In dealing with a subject such as this, one cannot afford to be dogmatic, but fortunately we have much data from which we may draw safe conclusions. These respiratory neuroses manifest themselves as vasomotor disturbances, muscular spasm, trophic lesions and rhythmic irregularities, consequent upon a disturbance of the perfect nerve equilibrium of health, either an increased or lessened excitability of the generating or inhibitory centres, or excessive stimulation. Fortunately the range of activity of these important centres is considerable, but where an over-excitability of the cell exists, whether of generation or of inhibition, and its function is impaired, and we have superadded an over-stimulation, we may expect untoward effects.

Such pathological conditions of the nerve cells are found in the neurotic, the anemic, the ill-nourished, the over-wrought, those exposed to bad hygienic surroundings and unfortunate environ-

*Read before the Toronto Medical Society, January, 1907.

ment—all conditions, in fact, that tend to the production of nerve debility. On these or even on healthy centres, we have, for example, a deluge of toxins from the gastro-intestinal tract, irritating or paralysing the cells, and all sorts of nerve explosions occur —a vomiting, a polyuria, an urticaria, a migraine or a convulsion. In infancy or early childhood, owing to the late maturity of the inhibitory centres, they are more liable to occur.

The pneumogastric nerve—the afferent nerve, chiefly accelerator, to the respiratory centre, the afferent inhibitory, to the cardiac centre, the afferent inhibitory to the vaso-motor centre, the sensory and motor nerve of the larynx, the motor nerve of the pharynx, the sensory and motor nerve of the œsophagus and stomach and motor nerve to the intestine, forming largely, as it does, the great pulmonary and cardiac plexuses, intimately connected with the great sympathetic system and cerebral centres, both cortical and basic, the vagus becomes the active partner in the neuroses of the respiratory tract.

Most of the lesions are irritative rather than destructive ones, as evidenced by their transitory character.

If the irritation be peripheral, *e.g.*, in the digestive tract, the discharge may be manifested there, perhaps as a colic or a diarrhea, but not necessarily so. Should the vaso-motor centre be irritated, peripherally or centrally, the discharge may take place through any or many of its efferent branches, following the lines of least resistance.

Again, the location of the lesion may be determined by some local irritation (Osler). For example, in the eczemas of infancy, during the dentition, when gastro-intestinal disturbances are common, the location of the manifestation is determined by the local cutaneous irritation, but if the local irritation be laryngeal or bronchial, then the manifestation of the neurotic disturbance will be a laryngeal edema, a laryngeal spasm, a turgescence of the bronchial mucosa or a spasm of the bronchial muscles, to which may be added an infection instituting an active inflammation.

It is a matter of common observation, that infants during the period of dentition are subject to alternating attacks of eczema and bronchitis, or eczema and diarrhea, and with the laity eczema is looked upon as a safety valve, during this critical period of child life.

There is more than a grain of truth in the proverb, and probably these are vaso-motor disturbances and their location determined by some coincident irritation.

This is illustrated very clearly in a paper on "The Visceral Manifestations of the Erythema Group of Skin Diseases," by

Osler, to which reference will be made later. Of trophic and spasmodic affections I wish only to speak for a moment.

Certain pneumonias have been observed to follow section of, or destruction of the vagus by tumor or other cause, and were supposed to be trophic in character, the vagus possibly containing trophic fibres; although by others they are thought to have been inspiratory pneumonias, from laryngeal paralysis.

The spasmodic affections are evident neuroses as seen in hysteria and epilepsy. The ordinary spasmodic croup, while there is a primary catarrhal irritation as the determining factor, is reflex, relieved usually by emesis or rectal flushing. Laryngismus stridulus, while commonly associated with rickets, is in no way a part of the disease, but dependent upon the mal-nutrition and irritability of the nerve centres, found in this and similar conditions; and all such spasmodic affections are simply localized manifestations of the condition of nerve instability which might result in general convulsive seizures in each individual case.

Respiratory *rhythmic* affections are essentially neurotic. The Cheyne-Stokes breathing in its three varieties is the most striking, and whether occurring in cardiac disease, uremia, cerebral disease, or meningitis, or as it occasionally does in the acute infectious diseases especially in children, is a central nerve affection, and due to the lessened excitability of the respiratory centre from toxemia or from pressure, the accelerated breathing being due to the over-stimulating qualities of the asphyxial blood ; the centre maintaining its rhythmic function, only acting in a larger rhythm, working under altered conditions (Gowers).

The significance of the phenomenon is of more fatal import in cerebral lesions than in toxic ones.

A slow respiration is sometimes seen in pneumonia as in other toxic conditions, where toxemia is profound, from paralysis of the respiratory centre.

I well remember the case of a little child suffering from a sub-acute ileocolitis, who, although not apparently ill enough to cause her parents alarm, showed respiratory difficulty coming on in the early morning, during sleep. She was noticed to be breathing slowly and with visible effort, slight dilation of the alae nasi and slight heaving of the shoulders. She played about the nursery that day and made no complaint, but the respiratory difficulty persisted. The following day she went into collapse and died in the early morning of the third day after the onset of the respiratory distress. Physical examination of the nasal passages, the larynx and the lungs was negative. This was, I believe, due to the over-powering of the respiratory centre from acute ptomaine poisoning.

On the other hand we often see in children suffering from

gastro-intestinal or other febrile disturbance, with no pulmonary complication, a respiration rate of from 60 to 80 a minute, which can only be due to an irritation of the respiratory centre or, as suggested by Rachford, an attempt at heat dissipation through a polypnoeic centre. Both of the above contradict the dictum, that disturbance of the pulse respiration ratio means pneumonia.

Whether bronchial asthma be due to muscular spasm or vaso-motor turgesence, all are agreed that "it is a neurotic affection, that the attack may be excited by irritation of the mucosa in any part of the respiratory tract, and indirectly by reflex influences from stomach, intestines or genital organs" (Osler).

Hare, in the *New York Med. Jour.* of April 7th, 1906, argues strongly and at length in favor of the vascular theory.

Morrison, in the *Br. Med. Jour.*, Nov. 25, 1905, just as enthusiastically supports the theory of muscular spasm, of bronchioles and muscles of inspiration, with some tumefaction.

The great resemblance in many of their features between hay-fever and asthma, as pointed out by Sir Andrew Clark, is generally recognized, and the two diseases often alternate.

Accepting the neurotic origin of these diseases with their vaso-motor features, leads up to the consideration of other conditions, similar in character and similar in origin. They may be stated briefly as edema and turgescence of the mucosa of the respiratory passages, of reflex origin, due to direct or indirect irritation of the vaso-motor centre.

Time will not permit of the recitation of cases in detail, but permit me to cite in a summary way a few cases illustrative of these conditions.

Case I.—Urticaria, cutaneous, buccal, laryngeal and bronchial, from use of quinine.

E. R., aged 28. A teacher of nervous temperament, subject to attacks of migraine.

Having forgotten her idiosyncracy, prescribed in the early morning sulphate of quinine in 2 gr. doses. Shortly after taking the first capsule, complained of itching of the skin, fullness of the throat, and some dyspnea, which soon became alarming to herself and to her friends. An hour later I found her decidedly cyanosed with marked dyspnea, hoarseness and some cough; the irritation of the skin was abating, but the rash was still evident on arms and chest; the fauces were red and turgid, and throughout the lungs were abundant sibilant and fine mucous rales.

The distress soon began to subside, but the cough continued with free expectoration of frothy mucus for some hours, disappearing entirely by evening.

Case II.—Faucal and laryngeal urticaria from eating strawberries. D. A. McD., a clergyman, aged 50, having had a similar

experience some 10 years previously, had refrained from eating strawberries absolutely. On being chided by his hostess, who volunteered to take all responsibility in the matter, he ate his share of the fruit set before him. Before leaving the table he had a feeling of constriction in the throat, difficulty in speaking and a sense of suffocation; the dyspnea became extreme and soon he became unconscious. A physician, one of the guests present, told him afterwards that he was deeply cyanosed, had remained in this extremely critical condition for nearly an hour, and was relieved by the effective administration of an emetic. Whether this was a laryngeal affection, purely, or whether the bronchial mucosa was involved, I cannot say.

Case III.—Evidently one of vaso-motor turgescence of the bronchial mucosa, only relieved by free purgation. Recurring attacks.

M. J., aged 20 months, a large, well-developed child, but somewhat anemic, mother decidedly neurotic, and indulgent to her child in the matter of appetite. February 10th, 1902, at 7 p.m., child coughing, an ocasional, dry, short cough. At 9 p.m., when first seen by me, cough incessant, but child running about the room, apparently quite comfortable. Pulse 96, temp. per rectum 98.6 F. Respirations 28. On physical examination, nothing could be heard, save a few moist and fine sibilant rales. Thought the case to be one of simple bronchitis, of no severity. Before preparing to leave the house noticed the respirations to be more rapid and examined again. Pulse 120. Respiration 40. Fine, moist rales more abundant, with slight cyanosis. Ordered a soap and water enema to be given at once, which emptied the rectum of a large load of fecal matter. Applied warm mustard packs about the thorax, improvised a tent over the cot for the using of benzoin vapor, administered 2 grs. of calomel, to be followed by repeated doses of mag. sulph. Ordered also belladonna and strychnine. By this time, 10 p.m., the child was decidedly worse, becoming drowsy and indifferent. Pulse 150. Respirations 80. Marked cyanosis, but no laryngeal stridor or asthmatic breathing. Abundant, small, moist, almost crepitant rales to be heard over the whole lung area. Had recourse to active stimulation, with aromatic spirits of ammonia and whiskey. By midnight the child could hardly be roused and it was with great difficulty that we could administer the saline. The face was pale and the surface of the body felt cold and clammy, respirations 90 to 96. Temp. per rectum below 100 deg. F. Pulse from 180 to 240, that is from 30 to 40 to the 10 seconds. The little one began to respond somewhat to the stimulation, but her condition remained much the same till 4 a.m., when she had a copious, offensive bowel movement. She began to improve at once, respira-

tions became slower and her pulse rate abated. At 10 the following morning she was bright, no cyanosis, respirations 40, pulse 130. Abundant mucous and sonorous rales were to be heard, but there was no evidence of consolidation. Her improvement was rapid. By the following day all physical signs had practically disappeared.

Three weeks later the child had a recurrence, very similar in its onset and progress, but of shorter duration. The same medication was adopted, the attack subsiding after free purgation with calomel and salines, which were administered early.

A third attack a week later was aborted by purgation alone, assisted by a large flushing enema, given high up in the bowel, but not before it had become alarming.

Having learnt by painful experience, the mother exercised more discretion in the feeding of her baby and was saved further repetition.

Case IV.—Angio-neurotic edema frequently recurring, affecting face, hands, fauces, palate and larynx, with one attack of extensive cutaneous urticaria, one attack of laryngeal edema with bronchitis and severe colic.

E. L. aged 45, remarkedly neurasthenic, a morphia taker, acknowledges taking 8 grains a day, moderately alcoholic, an excessive candy eater, anemic, flabby, irregular in his habits and leading a most unnatural life. In April 1906 had an extensive cutaneous urticaria lasting some days, with considerable edema of face, especially left side. May 15. Was called hurriedly by his wife, who said her husband had a convulsion. Found it to be a violent colic; there was marked facial edema and dysphagia; the fauces were pale and edematous, the velum palati and uvula extremely so. There was a definite bronchitis with slight hoarseness which increased as the day went on, so that during the succeeding night there was marked dyspnea. Medication consisted of free purgation with calomel and sulphate of magnesia cold to the larynx and the use of an astringent spray with strychnine and atropine hypodermically.

The following morning the dyspnea was less, and in the course of a day or two had with the faucal edema entirely disappeared. The bronchitis was of moderate severity, but of no unusual character. He has had several similar attacks and invariably consequent upon more than usual dissipation, with digestive disorder.

Case V.—A physician of this city reports to me a case of three successive, alternating attacks of asthma and urticaria, the former being relieved as the latter appeared, and due on each occasion to eating unwisely of old cheese.

That these conditions are vaso-motor disturbances and of neurotic origin, in my mind, there is no doubt. Case III., that of

the little child with the three severe bronchial attacks, is one of comparative rarity. It is one of these cases called by Holt "Attacks Resembling Acute Bronchitis," by Rotch "An Unusual Form of Acute Bronchitis" and closely resembles, and, I believe, is identical with what Nothnagel refers to as "Asthma Dyspepticum." The rapid onset, the prostration, the cyanosis, the stupor, the rapid breathing (unlike asthma), the physical signs and the rapid subsidence, make a very typical picture. Nothnagel attributes it to gastro-intestinal disturbance, but is not prepared to say whether it is of purely reflex origin, as maintained by Henoch, or due to the action of toxins upon the vaso-motor centre, toxins absorbed from the gastro-intestinal canal, or auto-intoxications from disturbance of the metabolic processes. He does not recognize it as an asthma and regrets the term. Rachford, unhesitatingly, pronounces certain asthmatic attacks of children due to vaso-motor turgescence of reflex origin from the upper air passages or to auto or other intoxications, and refers to these very cases spoken of by Holt as illustrative of this condition. In the case cited above the source of the irritant was the gastro-intestinal canal, either of reflex or toxic nature, as evidenced by the immediate relief, in the three successive attacks, by free purgation and cleansing of the tract.

Case IV., that of the angio-neurotic edema, with bronchitis, is another of those cases dealt with by Dr. Osler in the paper mentioned above, the third of a series of three, two of which appeared in the *Amer. Journ. of Med. Sci.* of 1895 and 1904.

He gives a series of 29 cases of all ages and of both sexes, and divides the complications into two groups, first, the angio-neurotic, to which belong the swellings of the fauces, the edema of the glottis, the changes in the bronchial mucosa, and the colic; second, the inflammatory, including endo- and peri-carditis, pleurisy, pneumonia and nephritis. In 17 of the cases there was urticaria; in 25 a colic, which he ascribes to localized edemas in the mucosa of stomach or bowel, in 2 a bronchitis, in 3 a pneumonia, one following immediately upon the erythema, in one a spasmodic croup, and one case of persistent catarrh of the small tubes, leading to emphysema. He refers to a list of 39 cases of erythema, by Dusch and Hoche, in which pleurisy was mentioned twice, bronchitis once and pneumonia twice (both fatal), and to the 70 cases collected by Lewin of erythema nodosum, in which were four deaths from pneumonia.

Halsted, in the same journal, of 1905, in writing of "Angio-Neurotic Edema of the Upper Respiratory Tract," reports recurring attacks of edema of the larynx in connection with attacks of urticaria and localized edemas in other situations, and quotes from the *Brit. Med. Journ.*, June 14th, 1902, the remarkable

Griffiths case, in which two persons, father and daughter, died of edema of the larynx in this disease, and refers at length to an unfortunate series of cases where death followed closely upon the injection of the prophylactic dose of antitoxin (which is frequently followed by cutaneous urticaria), and attributes the fatal result either to edema of the larynx or to a localized edema of the brain, paralyzing the respiratory centre. The late Dr. Packard, as noted by both Halsted and Osler, reported three cases in which cutaneous urticaria alternated with asthma, the one subsiding as the other developed.

Now, it appears to me that if these conditions exist as independent diseases or as complications of other affections, that it is quite possible, as I said at the outset, if not probable, that they may become a feature of no mean importance in the inflammatory diseases of the respiratory system.

In a pneumonia or bronchitis, as etiological factors we may, perchance, have the neurotic temperament, the debilitated nerve cell, the disarranged nerve equilibrium, the marked hereditary tendency, as wonderfully illustrated in Osler's cases; and, if we allow, for example, toxic products, whether protein, toxin, or ptomaine, from the gastro-intestinal canal, or other viscera, to ride rampant, then, remembering the dictum that "local irritation determines the site of the lesion," surely it is possible that to the primary inflammatory trouble we may have added the neurotic one.

And again, is it not possible that a neurotic vaso-motor condition be present in the pneumonias, for example? Why the sudden onset of a lobar pneumonia? Why the crisis? Immunity cannot be established so suddenly as that. Why the rapid fall in respiration? Other inflammations do not subside so rapidly and, indeed, the physical evidences of inflammation—the dullness and bronchial breathing, etc.—persist long after the respiration rate subsides. Is not the herpes labialis suggestive in itself? Why the limitation of the disease to a lobe or a part of a lobe when the whole lung is exposed to the infection? May not the limitation be determined by nerve distribution, and may we not well be on guard against this possible weapon of a dangerous enemy?

THE BIRTHPLACE OF OPSONINS—NOTES OF A VISIT TO SIR ALMROTH WRIGHT'S LABORATORIES AT ST. MARY'S HOSPITAL, LONDON, ENGLAND.

BY M. D., TORONTO.

SEEING that the medical profession of the Province are watching with interest the progress of the work in the new laboratory for therapeutic inoculation, established in the General Hospital, Toronto, the following picture of the first opsonic laboratory in the world, as seen by two Toronto physicians recently, may be of interest to the JOURNAL readers:

One of the most interesting sights in the medical world of London is the laboratory of Sir A. E. Wright, at St. Mary's Hospital, where, surrounded by his assistants and students, Sir Almroth carries on his investigation of disease due to bacteria, and also puts into application his well-known methods of treatment.

It is interesting to recall that only five years ago did this movement begin, in a small, musty laboratory at the rear of the hospital; to-day Dr. Wright has so extended his work and demonstrated its usefulness to the cure of disease and the alleviation of suffering that he has now a considerable part of a large new wing of St. Mary's Hospital devoted to his particular work.

I was told that only a few years ago the attendance at his laboratory each week would be no more than a few dozen patients; now they are numbered by a few hundred; and these patients are drawn from all over the British Isles, and, in fact, from all parts of the world.

He now requires two separate rooms in which (with his staff) to carry out inoculation treatment in proper cases, and to incept the investigation of such new cases as may come from time to time.

The staff of each room consists of a chief, whose duty it is to see each new patient, begin the bacterial investigation necessary, to direct the treatment of such a case when the investigation is complete, and to carry out the line of treatment by inoculation with the appropriate vaccine. This chief has one or two assistants under his immediate orders.

Sir Almroth himself is in charge of one of these rooms for inoculation, and the patients are so alternated that he sees practically every patient once a week.

Of course, it is necessary for him to have a clerical staff to keep track of the histories of his patients.

He has what is called a routine laboratory, where four or five young men, thoroughly trained, carry out the ordinary blood and bacterial examinations required. Another large laboratory room is devoted to research, wherein the more advanced assistants and students are continually seeking for new knowledge and doing any

special investigations that may be required for a particularly difficult case.

The influx of students from all parts of the world demanded a further equipment for teaching purposes, and he has recently added another large laboratory, well equipped, which is in charge of his senior assistants, and a regular course of lectures and demonstrations is given for a period of six weeks to two months.

As adjuncts to such laboratories, he has special rooms for the preparation of bacteriological and chemical incepts—a so-called preparation room. He also has a room devoted to the preparation of vaccines, as well as several large incubator rooms.

Shortly, through donations of interested philanthropists, he will have at his disposal a dozen more beds, wherein he can take patients for observation or treatment.

It will thus be seen that St. Mary's Hospital is well leading the world in the development of this new branch of therapeutics, and it would seem to be an almost complete proof that the claims that Wright has made in respect to the successful treatment of bacterial disease by proper inoculation with vaccines was furnished by the large expenditure the authorities of St. Mary's Hospital have gone to in order to provide this immense plant for the carrying on of this treatment.

Perhaps the most striking characteristic of Wright's great clinics was the number of cases of disease that had resisted all other forms of treatment, and stood there before one's eyes restored to health.

It is difficult to go into detail with respect to these cases, if it were advisable, but we saw one-half a dozen or more terrible cases of extensive ulcerations of the limbs or the neck or the hands completely healed and apparently enjoying the best of health. Dozens of cases of infection, due to the staphylococcus, such as boils, sycosis, were apparently quite recovered. At the time of our visit they were working on one or two cases of glanders.

Numerous cases of tuberculous infection, such as epididymitis, cystitis, cervical adenitis, were under treatment.

In a general way, one could not help but be greatly impressed with the earnest conviction of Sir A. E. Wright himself, and of his numerous assistants and students, that they were carrying out thoroughly rational and scientific treatment—a treatment which from long experience with it, seemed a matter of course to them.

If you should visit Wright's laboratory at two or three o'clock in the morning, you would see anywhere from six to twelve men still working away, endeavoring to solve further mysteries in the treatment of disease.

One could not but feel that Wright's prophecy must ultimately be fulfilled, namely, that every hospital that calls itself a scientific institution must have attached to it some such laboratory as his for the rational, scientific treatment of bacterial disease.

THE CHILD-SNAKE.—MONSTROSITY WHICH HORRIFIES —SENSATIONAL CASE.*

With these suggestive titles, we were furnished, by our esteemed representative at Bélen, through the *Provincia do Para,* date of 5th of August, the following story which was published, of a most surprising case of teratology.

A few days ago there was baptized at the Church of Alémquer, a child of four or five months, which represented a most curious and strange case of maternal suggestion, not only interesting, but a phenomena worthy of study. On the occasion of the baptismal ceremony, the small church was filled by the curious, among whom was noticed Mr. Hector Araujo, of the well-known house of Goetschell, jewellers, of Conselheiro Joao, Alfredo Street, who also took this opportunity of observing this extraordinary child. A child with a perfect human form, but with the hide of the "giboia," or water-python, with its white, red, and black marks, also the scales of this repulsive reptile. The head is without hair, but covered with scales, which are quickly raised when in anger. This strange child is absolutely mute, it having never made a sound. The mother has constantly to wet the skin of the body, as the skin dries quickly, otherwise it would start to crack. Mr. Hector Araujo heard later the terrible details of the horrible phenomena, how the mother received the profound impression in the first months of gestation. Her husband, having gone fishing, quite a distance from their home, on the Arapiry River, tying his canoe to the bank, went to examine his nets. On his return to the canoe, he found an enormous python curled up inside, which he promptly killed and threw on the shore. Having done this, he re-entered his canoe, and on jumping on a board which was in the bottom of the canoe, he felt the sting of another python, the same size as the first one, which was partly hidden under the board. As is well known, there are times or seasons when the python is not a venomous snake. This happened to be to the contrary. The fisherman was in the habit of getting drunk while out fishing, so his wife the next morning started out to look for him, after having passed a disquieting night. Looking for him along the river bank she finally found him dead with the dead python coiled about him. It was this picture of horror and repugnance making such a profound impression on the mind of the woman, which made it impossible for her to forget the terrible spectacle. The birth took place under normal conditions, but there were still more desperate and unhappy moments to come to the victim of this awful occur-

* We are indebted for this translation to Dr. H. C. S. Elliot, Cobourg, Ont.

rence, to give birth to such a monstrosity, by the inexplicable and capricious mysteries of nature. There arrived yesterday afternoon, in company of the pharmacist, Mr. Alvaro Benicio de Mello, Maximiana Maria da Costa and her nine months' old son, the victim of this monstrous misfortune. He is called Manuel de Samt, Anma Costa. Mr. Benicio de Mello, having read the facts in the *Provincia,* determined to make a trip to the place where the mother and this extraordinary child lived, with the intention of bringing them out and showing them to the medical profession for investigation. Having arrived in the city of Alémquer, the assistant pharmacist, Francisco Baptista, raised a subscription for the little one, amounting to 115 milreis. Mr. Benicio de Mello treated the child for its eyes, which were in horrible condition. The eyes responded to the treatment. Having arrived at Bélem, a number of reporters and other curious persons came aboard to see at close range the Child-Snake. Mr. Benicio de Mello, who is going to present the child for examination to Doctors Azevedo Ribeiro and Tertulliano Pacheco, specialists on diseases of the skin, gave out more interesting information. Whenever the child is about to feed it works the tongue, dry and vibrant, very much as is noticed in the snake. It seems perfectly happy and contented only when its mother wets a piece of cloth in cold water, and gently moistens the scales on its body. It lives as much as possible in a tub of water, and cannot stand the heat. The skin of the python is perfectly represented in every particular on the body of the unfortunate one, and does not seem to be a part of or adhering to the flesh of the child, being rather loosely attached and flaccid.

Selected Articles.

OSTEOPATHIC VERSUS DRUG TREATMENT.*

M. CLAYTON THRUSH, PH.M., M.D., PHILADELPHIA.

A concise exposition of the important principles of osteopathy and their relation to scientific medicine:

"The most experienced surgeon knows nothing of anatomy in comparison with the educated osteopath."

"The osteopath is a physician and surgeon in the best sense of the term, thoroughly conversant with the anatomy, physiology, and pathology of the body."—*The A. B. C. of Osteopathy,* 1907.

During recent years a number of cults or sects have sprung into prominence, the cardinal features of the majority being an alleged cure of diseased states by the employment of other means or agents than drugs, which latter are decried and declared as poisonous and injurious.

Conspicuous among these is a system called osteopathy, and during the past few years, because of attempts to secure legal recognition, it has come into sufficient prominence to attract the notice of the members of the medical profession and the laity throughout the United States, as its disciples can be found in almost every village and hamlet in this country.

It has been one of the subjects for discussion at many of the local and state society meetings in the various states, especially since the osteopaths have been very active in legislative matters. There are now thirty-eight states that have laws recognizing and regulating the practice of osteopathy, and the medical profession, as a whole, has been disgracefully apathetic, and deserves no credit for permitting this official recognition without most emphatic protest.

I sincerely believe that the majority of the members of our profession possess but a vague and indefinite knowledge as to what osteopathy really is, and the great majority of us have a very imperfect conception of its so-called principles and the precepts based thereon.

Realizing this fact, the object of this paper is to present a concise, yet comprehensive, view of this alleged science of osteo-

*Read in the Section on Pharmacology and Therapeutics of the American Medical Association, at the Fifty-ninth Annual Session, held at Chicago, June, 1908.

pathy, as defined in their standard text-books and periodicals, so that, by being familiar with its tenets and principles, we can intelligently work together as a body, first for the protection of the public, and, therefore, indirectly for the higher interests of medical science and its art, on which afflicted humanity relies for relief, cure, and the prevention of disease.

What is Osteopathy?

Hulett, in his "Principles of Osteopathy," defines it as follows: "Osteopathy is a system of therapeutics, which, recognizing that the maintenance and restoration of normal functions are alike dependent on a force inherent in protoplasm, and that function perverted beyond the limit of self-adjustment is dependent on a condition of structure perverted beyond these limits, attempts the re-establishment of normal function by manipulative measures designed to render to the organism such aid as will enable it to overcome or adapt itself to the disturbed structure." Thus the pathology of osteopathy repudiates science and explains typhoid fever, tuberculosis, scarlet fever, pneumonia, smallpox, and other ills of humanity as due to misplaced tissues.*

Osteopathic training is claimed so to augment the sense of touch that the fingers are enabled to locate the exact spot of the dislocation, and, by osteopathic knowledge of anatomy, manipulate, as no one else can, the tissues back to their proper relationship, and thus cure the afflictions of humanity!

Origin of the Term Osteopathy.

The term osteopathy is from the Greek words "osteo" (bone) and "pathos" (suffering), and literally signifies "bone suffering." But this does not refer to 'bone disease" or "bone treatment," as we might suppose, but has reference to the chief basal fact of the body, viz., the order and mechanics of the body. It is on this fundamental idea of order and mechanical relation in the body that the alleged science is based.

Origin of the Science.

The founder of the alleged science of osteopathy was Dr. A. T. Still, who for (a few) years was a practitioner of the erroneously called allopathic school. He announced publicly the principles of the new science at Kirkville, Mo., in 1874.

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* Dr. Andrew Still in the January, 1908, issue of the *Ladies' Home Journal*, writing on the subject, "How I Came to Originate Osteopathy," makes the following statement: I do not believe, and I say this after forty years of close observation and experiments, that there are such diseases as fever—typhoid, typhus or lung—rheumatism, sciatica, gout, colic, liver disease, croup, or any of the present so-called diseases. They do not exist as diseases. I hold that separate or combined they are only effects of cause, and that in each case the cause can be found and does exist in the limited or excited action of the nerves which control the fluids of a part of or of the entire body. The therapeutics of osteopathy are independent and original, and as extensive as the entire medical and surgical fields.

Osteopathic Education.

The osteopathic schools, according to Dr. (never received M.D.) O. J. Snyder, president of the Pennsylvania Osteopathic Association, are well versed in general medicine, and they claim to have had originally four terms of five months each, but recently this has been changed to three terms of nine months each. The reason for this change has not been given. The total number of hours devoted to the complete course is about the same as in the average regular medical school. They claim to teach everything the same as the regular schools, except materia medica, for which they substitute the principles of osteopathy. These statements are published in the March, 1907, issue of their leading journal, entitled *Osteopathy*. As a matter of fact, they teach the fundamentals erroneously, especially anatomy and physiology.

Now, if these statements are true that they teach the same subjects in as thorough a manner and devote the same number of hours to the subjects, then why do they object to the graduates of their schools passing the same examination as do the graduates of the other medical schools, and then be left to practise whatever branches of therapeutics they may elect? Because, like all sects, they wish to have sole control; their existence depends on self-control.

In other words, why not place all medical graduates on an equality, as they should be then required to possess the same preliminary education, a similar medical course for their degree and the same state board examination, differing only in substituting osteopathic manipulation for drugs under the subject of therapeutics in their college and state board work? Is not this a just and equitable arrangement? On therapeutics only do the allopathic, homeopathic, and eclectic schools differ at present.

The only way to attain this end is one medical board made up of representatives from each system of medicine. This is what we desire the legislature of this and other commonwealths to grant for the protection of the educated physicians, no matter what the school, against the quacks, charlatans, and incompetents who pose as physicians. This is all that we desire, and such an arrangement would be just as advantageous and protective to the properly trained osteopath as it would be to the members of the regular school.

In an address to the members of the Legislature of Pennsylvania in 1907 by the Pennsylvania Osteopathic Association in support of the bill to regulate the practice of osteopathy, favorable consideration of their present bill is asked for the following reasons:

First.—Because osteopathy, as an accepted science in the prac-

tice of the healing art, has come to stay, as can be testified to by the thousands of its patients in Pennsylvania to-day.

Second.—Because of the great success and popularity of osteopathy as a method of healing, the public are demanding protection from impostors and frauds, who are endeavoring to practise the art without the proper educational qualifications, to the detriment of the health of the credulous and uninquiring.

Third.—Because all other forms of practising the healing art, allopathy, homeopathy, and eclecticism, are regulated and protected by the laws of Pennsylvania.

Fourth.—Because the osteopathic profession desires only fair play and a square deal with other schools of medicine, and this bill provides that applicants to practise osteopathy shall take the same examinations as are required of those wishing to practise medicine, and that the state medical council shall issue licenses to practise osteopathy in the same manner as it issues licenses to practise allopathy, homeopathy, or eclecticism.

Fifth.—Because a consideration of the present bill will disclose that the osteopaths are ready and willing to adopt the same educational qualifications as required by the other schools, both preliminary and collegiate.

Now, if these are their true reasons for official recognition, as they pretend them to be, having presented them as such to our Legislature, then why do they object to one medical board with proper representation? There can be but one explanation for an objection by the osteopaths: They do not intend to furnish the same qualification for licensure. Otherwise they would not have presented their bill providing for a distinctive board composed of osteopaths. The reasons for this are obvious to anyone.

Theory of Osteopathy.

According to the statements of the leading osteopathic authorities the osteopathic treatment is purely mechanical, and consists of manipulations which seek to remove all obstructions to the vital forces of the body, and the theory on which it rests is that all diseases are due to some mechanical obstruction to the vital forces in the body, which may be removed mechanically without use of drugs. They claim that the method of treatment is based on a thorough knowledge of the normal and abnormal anatomy and physiology of the body.

The Cause of Disease.

Here the osteopath likewise differs from medical practitioners. The ideas held by osteopaths as to the etiology of the various diseases may be summed up as follows:

First.—Perverted Mechanics: That is, mechanical derangement

of the anatomic parts of the body. A very common cause of disease. Structure determines function. If the structural relations of the body tissues are all right, then the functions are normal; but if the structure is perverted in any way, then the function is also perverted, and this is what we denominate as the cause of disease. This is the Magna Charta of osteopathic declaration; the golden rule of osteopathic procedure.

Second.—Bacteria: Bacteriology is alleged to be taught in every osteopathic school with the same exactness as in the best regular schools.

The osteopath has always held to the germ theory as the cause of certain diseases, but the osteopath does not use the same means to recover the health of a patient so infected, yet he recognizes that such conditions exist. The osteopath, emphasizing that disease is primarily of mechanical origin, holds, therefore, that germs are generally a secondary factor in the cause, and he believes that so long as the tissues of the body are healthy no germs can infect the body. There must be a suitable soil for the bacteria to live in or the bacteria will not cause infection. He further believes that if any part of the body is infected, and he can restore a good circulation of pure blood to the part so as to restore a healthy condition of the tissues, the invasion of bacteria stops then and there. I should like to know what specific dislocations cause, respectively, the infections, as microbic diseases result from misadjustment of structure, according to osteopathy.

The osteopath recognizes that disease may be due to toxic or poisonous compounds which may enter the system, but you will notice that the cause of the presence of toxic products is due to a perverted function, which is the result of a perversion of structure.

In case of the ingestion of a fatal dose of a poison, the osteopath would give the usual antidote and treat accordingly. They have a course in toxicology in their college course, claimed to be properly taught.

Osteopathy as a System of Medicine.

The osteopaths state that osteopathy is not a part of medicine, and has nothing in common with it, other than the professed aim to cure disease. Its diagnosis and treatment are wholly unlike those of any other system of healing. The aim of medicine is to relieve symptoms, whereas osteopathy has for its object the removal of the cause. The regular physician treats symptoms, whereas the osteopath treats the lesion causing the symptoms.

Osteopathy as Related to Massage and Swedish Movements.

Osteopathy is claimed to be entirely distinctive from massage or Swedish movements, resembling them only in being an appli-

cation of a mechanical principle. Massage and Swedish movements are only systemic exercises, whilst osteopathy is adjustment. Osteopathy is not exercise, and it is not given with the object of giving exercise to a patient, although in taking the treatment the patient receives a variable amount of exercise according to the lesion requiring adjustment.

Osteopathy as a Science.

The osteopath looks on the human body as a machine, and if the machine is in perfect order and harmony within itself then a state of health prevails. The bones form the foundation and framework of the body. The muscles and ligaments are strung on the bones, and the bones have more to do in determining the order and form of the body than any other tissue in the body. The nerves become irritated by physical, chemical, traumatic, or other causes, and these irritated nerves cause the muscles and ligaments to contract, and this brings about more or less maladjustment in the body.

These maladjustments interfere with the function, and are termed lesions, or the seat and underlying cause of disease. All diseases are due to lesions, and these lesions may occur in any portion of the human body. The osteopath claims that with a proper knowledge of the anatomy of the body he can detect these lesions, and the purpose of his treatment is to remove them, and thus establish harmony and order in the body, which is the basis of health. The body being a vital machine, all it needs is to be able to perform its functions, and then it recuperates itself. Hence, by various manipulations, using the bones as levers, the purpose of the osteopath is to readjust a maladjusted body as structure determines function; and if we re-establish a normal structure, then normal function will result. To cause this adjustment may require only a single movement, as in reducing certain dislocations as around the elbow or hip joints by rotating the arm or leg and pushing into position; or it may require several weeks' treatment, as where certain of the vertebræ are involved, and in giving the treatment the practitioner may have in view either or both of two objects. He works to right the spine and to affect it alone, or he works on the spine to affect some other part of the body pathologically connected with the part of the spine in question.

In the treatment of the spine twenty-one different methods of manipulation are resorted to, according to the lesions present, as described in Hazzard's *Practice of Osteopathy*. I will merely mention two of them to show the kind of methods that are used.

For relieving contractures and toning up flabby muscles the patient lies on the ventral aspect of the body in a comfortable

position, the head is turned to one side, and the arms hang loosely down at the sides of the table. The patient relaxes all his muscles, and the osteopath stands at the side of the patient and uses the palm of the hand or the cushion of the fingers to thoroughly manipulate and relax all the spinal muscles. In treating the muscles on the side toward him he works from one end of the spinal column to the other in a direction at right angles to the general direction of the muscular fibres. He treats the muscles of the opposite side by spreading them away from the spinous processes.

In case of curvature or sagging of a portion of the spine or lateral deviation of the vertebræ, the patient lies on his side, and the practitioner stands at the side of the table in front of the patient. With one hand he grasps the uppermost arm of the patient, just above the elbow; the other hand he holds under the spinous processes, or any portion of the spine under treatment. Now, using the arm as a lever, he pushes it downward and forward, at the same time springing the spine toward him.

In order to have a practical demonstration of this treatment I consulted one of our prominent osteopaths, a member of the faculty of the Philadelphia College of Osteopathy, and, as expected, I had a slight curvature of my spine, etc., which he manipulated, using a number of their classical manipulations. He informed me that each osteopath has certain manipulations characteristic to himself in addition to the classical ones, and he also told me that all that they do is to stimulate the circulation and make people "feel good." "That is why osteopathy is so popular."

The Office Equipment of an Osteopath.

The office equipment usually consists of a reception room and one or more booths or "work rooms," in which there are a leather-covered table and several chairs or couches. The patient, if a man, removes his top clothing down to his underclothes, except his trousers; and if a woman, after removing the outer garments in a similar way, she wears a loose gown during the treatment. "Their peculiarly sensitive sense of touch responds through two thicknesses of clothing, as they determine the lesions causing the disease with the X-ray tipped digital phalanges of their fingers, which show the maladjustments of structure and dislocations." They certainly possess supernatural powers of palpation, and, strange to say, it is all acquired in three years!

As a rule, their offices are attractive and handsomely fitted up, even in the country towns.

Character of Cases Treated.

The majority of the patients are from among the middle and upper classes, as their treatments are rather expensive for poor

people, although they have free dispensaries connected with their colleges. Their usual fee is $25 for twelve treatments, some charging more, some less. The time required for a treatment varies from ten minutes to an hour.

Osteopathy will never interfere to a great extent with medical practice, as the great majority of the patients are treated in the offices for conditions that allow them to be around, and if they are really sick with some acute disease, a regular practitioner is called; so that osteopathy is a sort of gymnastic specialty, as it were, and not invoked as yet for illness which regular practice confronts. Of course, some osteopaths attempt to treat serious cases, but they are in the minority.

Thus we have a clear conception of what osteopathy really is and stands for, as stated by the leading authorities of their school.

Now, let us consider the relations between osteopathy and the various branches of medicine, remembering that they treat all these affections solely by manipulation, as they are opposed to the use of drugs in the treatment of disease.

Osteopathy and General Medicine.

The osteopath represents himself as a competent clinician, and treats all the various medical diseases, including the acute infectious diseases such as typhoid fever, tuberculosis, malaria, pneumonia, etc.

Diseases of Children.—The osteopath treats all the various diseases of childhood, including the contagious type, such as diphtheria, scarlet fever, etc., and he is opposed to the use of antitoxin in diphtheria and also to vaccination.

Ophthalmology.—The osteopath treats such diseases of the eye as granular eyelids, strabismus, pterygia, partial and total blindness, eyestrain, etc., and he does it by manipulation alone, for, according to their pathology, these conditions are due to maladjustments. They treat practically all the usual eye diseases.

Diseases of the Ear.—In the treatment of diseases of the ear the osteopath uses a head mirror and ear speculum. He treats various types of otitis, deafness, earache, etc. He uses and recommends antiseptic agents in solution, injected by means of an ear syringe, yet he claims to be opposed to drugs!

Diseases of the Nose and Throat.—They treat the various affections of these parts, including such diseases as laryngitis, tonsilitis, parotitis, pharyngitis, stricture of the esophagus, etc.

Neurology.—They treat the various nervous affections, such as chorea, epilepsy, locomotor ataxia, paralysis agitans, etc.

Diseases of Women.—Diseases of women are a most important part of osteopathic practice and they make vaginal examinations for the purpose of diagnosis, and in giving treatment they not only

treat the patient along the lumbar portion of the spine, but also treat through the vagina, especially in such conditions as uterine displacements and prolapsus. They treat various menstrual disorders, ovarian and tubal inflammations, leucorrhea, uterine tumors, carcinoma, etc. Some of their treatments for gynecologic conditions are of especial interest, and they have special text-books on osteopathic gynecology. The following is a good example: In *Hazzard's Practice*, page 418, for the treatment of uterine hemorrhage the following procedure is recommended: "Often a quick, rather hard jerk at the hairy covering of the mons veneris is sufficient to contract the vessels and staunch the flow. Stimulation of the clitoris is also an important means."

Obstetrics.—Osteopaths treat and deliver pregnant women, and recommend special procedures to aid in the delivery of the child. A few of their special manipulations are of interest, as recommended on page 418 of *Hazzard's Practice*. To deliver the placenta "a quick pull at the mons veneris will aid in expelling it." "Desensitize the clitoris to stop after pains."

Genito-urinary Diseases.—They treat orchitis, varicocele, enlarged prostates, impotency and even gonorrhea and syphilis. Gonorrhea is usually readily cured without the usual sequels (page 422, *Hazzard's Practice*), and it is done by manipulations which "frighten the gonococcus."

Orthopedic Surgery.—Osteopaths make a specialty of reducing deformities and dislocations; hence they treat all the affections classified under this heading, such as spinal curvatures, Pott's disease, etc.

Diseases of the Skin.—They treat the common skin diseases, especially those of systemic character, including syphilis, etc.

Surgery.—Osteopaths recognize surgery as a branch of medicine at times necessary, but some of the treatments that they recommend before resorting to surgical means are particularly interesting. One will suffice to illustrate some of the barbarous and dangerous procedures that are advised in their text-books and carried out in actual practice among civilized people throughout the United States.

In *Hazzard's Practice*, page 174, we read under treatment of intestinal obstruction: "Some writers recommend thorough shaking of the patient. The patient is held by four men by the arms and legs, first with the abdomen upward, then downward, while the shaking is done. There should be much persistence in the treatment." This treatment would certainly relieve the obstruction, especially if the intestines are soft and gangrenous, but the undertaker's services would be required a little later as an adjuvant to the treatment.

Limitations of Osteopathy.

Hence one can readily see from the above classifications that osteopathy has no limitations, as they claim to cure every disease that ever existed or ever will exist, as can readily be proved by an examination of Hazzard's work on the practice of osteopathy. They even treat pneumonia, typhoid fever, tuberculosis, acute nephritis, uremia, smallpox, parasitic diseases, such as those caused by various intestinal worms and even tumors melt away as snow under the midday sun, according to their authorities.

Do Osteopaths Use Drugs?

It is frequently stated that osteopaths condemn the use of drugs and are opposed to them. A few examples will prove the falsity of such statements. As stated before, in the case of acute poisoning the usual chemical antidotes are ordered, and they are taught these in their medical course. In *Hazzard's Practice,* page 390, we read under treatment of variola: "The ordinary methods of preventing pitting by keeping the face washed with a carbolic or mercuric chlorid solution and covered with clean cloths saturated with warm water should be used."

Again, on page 394, under worms: "For tape-worm the patient should then drink quantities of pumpkin-seed infusion or eat a gruel made of mashed pumpkin-seed."

On page 353, under myxedema, we read: "It seems that in these cases thyroid feeding, a treatment regarded as specific, would be necessary."

On page 227, under the subject of chronic cystitis, we find: "In this form and in septic cystitis, washing out the bladder is a valuable aid to the treatment. For the chronic cases, sterile normal salt solution (40 to 60 grains to a pint) or weak solution of mercuric chlorid (1 :50,000 or 1 :100,000) are recommended. For septic cases, a saturated solution of boric acid may be used." Their explanation of microbic infection is here overlooked.

On page 162, under cholera infantum, we find: "Hot injections are valuable measures, aiding in the removal of the irritant material from the bowel. A mustard plaster over the abdomen relieves pain." These statements are taken from one of their leading books on the practice of osteopathy. But how in the world anyone can stop the growth of diphtheria bacillus in a child's throat by raising the clavicle and pressing the first rib downward and forward, working at its central articulation to correct the position of its head, is beyond my comprehension. Or in the case of hemorrhage complicating typhoid fever, inhibition of peristalsis should be done by work from the ninth dorsal vertebra down along the lumbar region. How this checks hemorrhage I should be pleased to hear someone explain. In my judgment, it would increase it,

and if manipulation is very vigorous, the danger of perforation would be greatly intensified, yet this is the treatment recommended.

Also, where a child is suffering from infection with the oxyuris vermicularis around his rectum, how raising the lower ribs causes their expulsion requires a little Christian Science faith to comprehend, does it not? Their vasomotor arc explanation is disproved by the facts of physiologic science!

Several of the patients who have been treated recently at the Philadelphia College of Osteopathy have been advised to use certain medicaments at home when manipulations did not relieve them, as they have told me personally, yet the osteopaths state that drugs are poisonous and injurious, and they are opposed to them. I have seen prescriptions in drug stores written by osteopaths!

Osteopathic State Boards.

Now, what are the objections to the osteopaths receiving official recognition in the various states and being licensed as the result of examinations before state examining boards composed of osteopaths?

1. They are not required to possess the same preliminary educational requirements as members of other medical schools, some of their graduates not even possessing a grammar school education.

2. The course is completed in three years, while regular practitioners are required to take four years.

3. They represent themselves as physicians when using the title doctor, and they treat every disease that is known, whether they can do good or not, manipulation often imperiling the life of a patient when suffering from certain affections, like tubercular arthritis or intestinal obstruction, etc.

4. They treat anyone who applies to them, whether they are under the care of another physician or not; hence have no code of ethics, except to use a name and collect the fee.

5. They treat patients in conjunction with practitioners of other schools, illustrating that the commercial weakness of birds of a feather affects the medical profession as it characterizes man everywhere.

6. A number of them secretly treat patients who are under the care of a regular physician.

7. If a patient's condition becomes serious they promptly drop the case and have the family send for a physician. They do this only because they cannot fill out death certificates. License them and they can. That is what they desire.

8. They occasionally write prescriptions for drugs or give verbal orders for their use, notwithstanding their claim that they are opposed to the use of drugs as remedial agents.

9. They have not the slightest knowledge of the proper phraseology in the construction or writing of a prescription.

10. If they should become licensed, they will not confine themselves to manipulation, but will attempt to practise regular medicine as well, thus antagonizing their own statements by using drugs and baths, yet they claim to oppose them.

11. They presume to pose as expert witnesses in litigation.

12. They are opposed to vaccination, the use of serums, such as diphtheria antitoxin, and other agents, such as electricity, X-ray, and hydrotherapy.

Now, what is the cure for the present existing conditions in the medical profession throughout the United States?

1. A one-board bill with proper representation, the same educational requirements and equal recognition to the graduates of all the various medical schools, the examination being the same in all subjects, except therapeutics, on which questions relative to the particular system of medicine studied should be asked, or the subject omitted entirely, allowing each one who receives the licensure to practise whatever system of medicine he deems best—i. e., protecting the public from the fearful consequences of incompetent practitioners by requiring by law that everybody who offers his services and assumes the responsibilities of treating disease, deformity, and injury, should qualify under one standard of knowledge, training, and ability, and this opportunity free for all alike. There are forty-four states at present that have a one-board bill in operation.

2. This standard to be the same in each and every state in the Union, so that proper reciprocal relations would be established which would enable a physician receiving the licensure in one state to transfer and practise his profession in any other state should he so desire, and at any time.

3. Any physician addicted to drugs or alcohol, or convicted of criminal or malpractice, abortion, or other practices contrary to the laws of his state, shall have his license permanently revoked, and said revocation to bar him from the practice of medicine in any other state.

4. A common standard of preliminary education should be exacted of every person desiring to enter a medical school anywhere in the United States, and every student should be required to pass this examination, no matter what his credentials are, not excepting a degree in arts or science; said examination to be about equal in standard to the present preliminary examination in law in Pennsylvania or New York or the equivalent of the present medical standard of the New York Board of Regents. This standard would debar a large number of students who do not possess

the proper preliminary education and who are a disgrace to the medical profession.

5. Every applicant should be of sound mind and body and of good moral character.

Abstract of Discussion.

Dr. Alexander S. von Mansfelde, Ashland, Neb.: There are very few members in this hall, I am afraid, who have not been guilty, when their patients have asked: "Have you any objection to my taking a few osteopathic treatments?" of answering: "Oh, I don't suppose it will hurt you. It is just massage." I hope that members of the American Medical Association will not hereafter commit the wrong of saying that osteopathic treatment is massage.

Dr. John Kercher, Chicago, Ill.: I wish to quote from a booklet by W. Livingston Harland, an osteopath, a definition of osteopathy assumed to be authoritative. When I get through I shall be glad if anyone can enlighten me on the meaning, as I do not understand it yet, although I have read it several times: "Osteopathy may be formally defined as the science which consists of such exact, exhaustive, and verifiable knowledge of the structure and functions of the human mechanism, anatomical, physiological, and psychological, including the chemistry and psycho-physics of its known elements, as has made discoverable certain organic laws and remedial resources within the body itself, by which nature under the scientific treatment peculiar to osteopathic practice, apart from all ordinary methods of extraneous, artificial, or medical stimulation, and in harmonious accord with its own mechanical principles, molecular activities and metabolic processes, may recover from misplacements, disorganization, derangements, and consequent disease, and regain its normal equilibrium of form and function in health and strength." The volume is called "Osteopathy: The New Science." It stands as a sort of text-book for the osteopathic cult, and the author, in his introductory, says: "This little volume, which we believe is the first that has ever been published in book form on the science of osteopathy," etc.

Dr. R. A. Lyman, Lincoln, Neb.: The osteopath surrounds some of the newer methods in therapeutics by a system of graft which is not understood by the layman. This fact medical men should remember. To the layman's mind osteopathy and massage are one and the same. A short time ago a prominent member of the faculty of the University of Nebraska asked me what I thought of osteopathy. He had been treated by an osteopath, had been benefited, and now praised the "doctor" highly. I gave him the substance of the "system." He had supposed that osteopathy and massage were identical. When I took the trouble to explain that massage is but one of the methods of treatment that had been

used for years by the regular profession, he regarded osteopathy in an entirely different light. Psychotherapeutics and Eddyism are identical in the mind of the average layman. It is our duty to explain these fads to our patients. If this is properly done, the average thinking man will get the proper perspective. Such a procedure on the part of medical men will do more towards eliminating these systems of graft than all the legislation which might be enacted.

Dr. M. Clayton Thrush, Philadelphia: I presented this paper primarily for three reasons: First, to show in a concise way what osteopathy really is and what constitutes its important principles. I have talked with many physicians on this subject, and none could give me anything like a satisfactory explanation of the claims of osteopathy. Second, to show how dangerous it is. Everyone in this room has been asked by a patient whether he should try osteopathy. Often these patients have a disease in which the methods used by osteopaths will do harm and may even cause death. Third, to plead for a one-board medical law. We have only ten states in this great Union without such a law at present! Each man who practises healing, no matter what his cult, should be required to pass the same medical examination and with the same preliminary requirements, etc. We have only seven states which do not require every candidate to be at least a graduate of some reputable and chartered school of medicine; and with only seventeen states remaining which do not possess reciprocal relations, our work is almost, but not quite, finished. We want to get these seven states in line. When we do this we shall have this task complete. Do not forget the important facts which I have outlined in my paper, and which prove that in recommending osteopathy you are recommending to your patients procedures that may mean death, or at least harm, to your patients.—*Journal of the A. M. A.*

OPERATION FOR UNDESCENDED TESTICLE.*

BY F. N. G. STARR, M.B., TORONTO.

From a brief scrutiny of the literature, it would seem that there is thought to be a small chance of help for non-descended testicle except by castration. Erichsen[1] says: "Any attempt to bring the testicle down into the scrotum would be ineffectual." He further adds, that if it is in some position in the canal where injury is likely to occur, it is preferable to remove it. Treves[2] says the undescended testis should be stitched to the bottom of the scrotum, and under certain circumstances should be removed. Pick[3] thinks one should consider the feasibility of transplanting the gland and fixing it in the scrotum. If this cannot be done he recommends its removal. Bryant[4], after describing a fascinating method, adds: "The successful attainment of these steps is not easy, nor finally as satisfactory as might appear from the description." Stonham[5] describes an operation where he makes a long incision and transplants the testicle, suturing the tunica albuginea to the scrotum. Kocher[6] recommends fastening the spermatic cord at its entrance into the scrotum, as well as fastening the testis to the bottom of the scrotum. Corner[7] says that replacement in the abdomen is indicated in by far the majority of cases. Bevan[8] describes an elaborate operation which necessitates opening the peritoneal cavity. Von Bramann[9] advises strongly against removal.

From the foregoing remarks it will readily be seen that there seems little to choose from in the various methods recommended. Some other writers advise massage and manipulation, and no doubt, if begun early, and carried out persistently, some of the cases might be cured. Others have recommended a U-shaped truss to fit just above the testicle and force it down, while yet others have described various mechanical devices with the same object. Such methods have only to be mentioned to be condemned.

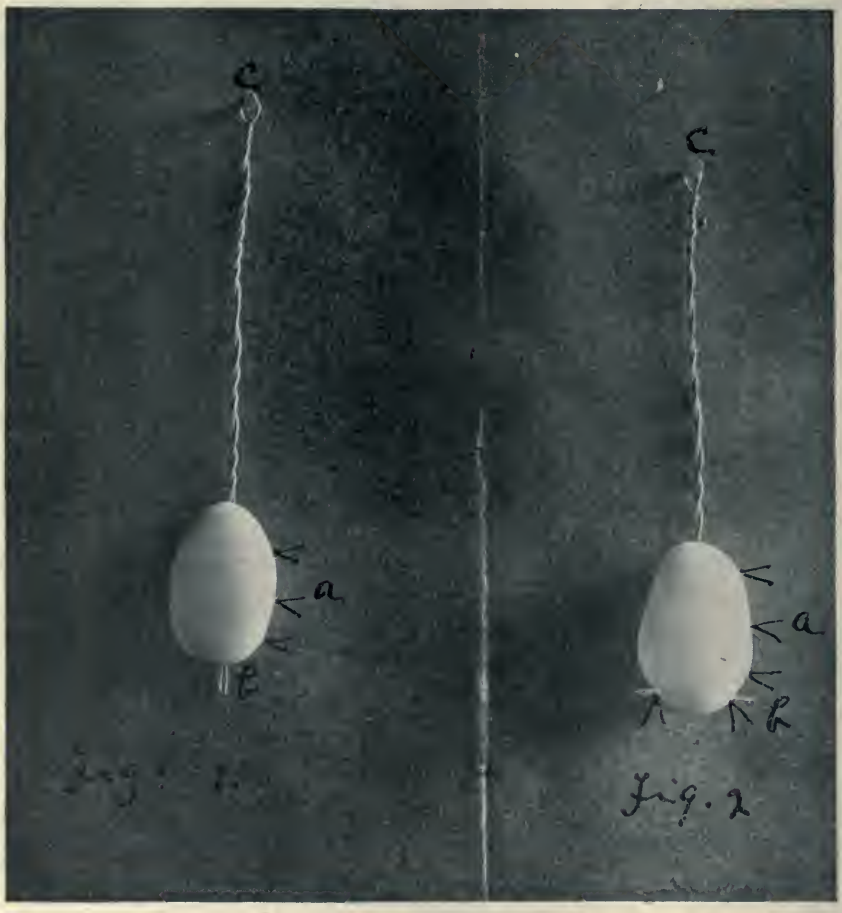
It would seem then that surgeons are divided between—suturing to the bottom of the scrotum, transplanting within the abdomen, and removal. This latter cannot be too strongly condemned, for no matter how atrophic a testis may appear, one has no means of knowing the possibilities of development under suitable conditions.

When it comes to the question of operation, no doubt there are some cases in which, with the testis at or near the internal abdominal ring, it may be wise to transplant the gland within the abdomen, to remove it from the possibility of injury. But, when the testis is in the inguinal canal, near the external ring, or is outside

* Read at the Surgical Section of the Academy of Medicine, Toronto.

the ring, the following operation which I have devised and carried out successfully, appeals to me as a reasonable means of securing a desirable result.

An incision about one inch long is made over the external abdominal ring, the testicle is secured and brought out of the wound. The finger is then carried down into the scrotum, and, by



FIGS. 1 AND 2.

Showing testis secured to loop of silver wire to act as splint for retaining it in scrotum.

means of blunt dissection, the scrotal sac is stretched to make a suitable resting-place for the testis. The cord is then dissected free of its coverings, and, if necessary to secure increased length, the cremasteric and spermatic arteries may be sacrificed, but the artery to the vas must not be interfered with. It is well now to see that the testicle can be easily replaced in the pocket provided with-

out tension upon the cord. It is again taken out and sutured by means of chromic catgut, No. 0, through the tunica albuginea to the loops of a piece of plaited silver wire, two or three inches long, as may be required (Fig. 1 (a)). The wire ends at (b) are then pushed against the bottom of the scrotum and cut upon to permit of their being pushed through. The free ends are then bent, as in Fig. 2 (b). To make assurance doubly sure, two horsehair sutures are passed up through the tiny opening in the scrotum, from which the wire projects, one on each side of the wire shaft, to catch the tunica albuginea. They are brought out again and tied over the projecting wire ends (Fig. 3 (b)). The loop of the wire shaft at (c) is now sutured by means of 10-day chromic catgut No. 1 to the periosteum over the os pubis (Fig. 3 (c)). The testicle is now securely placed in the scrotum and is maintained there by means

FIG. 3.

Diagram to show splint in position. (C) Catgut that secures loop of splint to periosteum over the os pubis.

of a silver wire splint. The operation is completed by introducing through the skin, at one end of the incision, a horsehair suture which travels sub-cutaneously, taking up the spermatic fascia and divided cremasteric muscle over the cord. It is brought out again through the skin, at the opposite end, carried over the top of a small roll of gauze, and continued along as an uninterrupted stitch, to bring the skin edges into apposition. The two free ends are tied over another small roll of gauze. The wound is carefully dressed with plenty of pads and a double spica applied. On the twelfth day the dressing is removed, and the cutaneous horsehair, snipped at one end, is then easily withdrawn. The two horsehair stitches at (b) are now cut and removed, when the end of the wire is grasped with a pair of forceps and the wire splint removed.

The result has been most satisfactory. Both testicles are on a

level, both are now of equal size, though the non-descended one was small at the time of operation. There was no pain or discomfort during healing, and I was surprised at the ease with which the wire splint came away.

This operation holds out some hope for the correction of an abnormality that heretofore has not been amenable to treatment, other than such as will lead to a greater deformity, even though it does succeed in relieving pain and discomfort.

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LONDON LETTER

It is an interesting speculation how far a novel method of treatment is indebted to the glamor of its newness for the notable successes attending the period immediately following its introduction. A colleague was recently telling me of an old Paris physician who actually induced many anemic women to go regularly to the abattoirs and drink a pint of fresh blood. His treatment had a sound basis in therapeutic rationality, and he triumphed over an imperfect pharmaceutical *finesse* by an appeal to the amiable weakness that delights in all that is novel, even if it be bizarre; even if, as in this instance, it be revolting. The therapeutic fashion of the day is "sour milk" or "lactic acid milk"; the dairies bombard us with notices of the care and exactitude with which they prepare and distribute treated milk at physicians' orders. The plan has a great vogue, and one hears on all sides of the beneficial results obtained. These are by no means limited to cases of intestinal fermentation or constipation; the mystical properties of the old pharmacopœial "alteratives" are re-embodied in the lactic acid bacillus, and it is in danger of becoming a panacea. The only wonderful results associated with the treatment that have come to my knowledge are in osteo-

arthritis. Cases of severe progressive polyarticular disease have not only become arrested, but have improved with celerity beyond all possible anticipation; pain has vanished; swellings and thickenings have diminished; movement has been restored. How much of this is due to the cessation of intestinal intoxication, how much to the ensuing release of recuperative energy, how much to a new sense of well-being, how much to suggestion, how much to coincidence?

For some remedies the span of popularity and term of success is the nine days of wonderment. Others die a too-early death by misadventure. Therapeutics suffered a serious loss when transfusion of blood was stopped in consequence of anomalous results due to an imperfect knowledge of the conditions of hemolysis. Just now there is a danger of the valuable work that has been done on vaccines being robbed of its due fruition by the anaphylaxis scare. It is not only the matter of Nicolle's work on anaphylaxis in association with glanders and mallein or the B. Mallei; other disquieting bits of evidence crop up now and then. A coroner's inquest was held not long since on a case of death shortly after an injection of antitoxin; Goodall relates the anomalous results of antitoxin used for recurrent cases, treated in the original attack by antitoxin; then Armit demonstrated some remarkable facts at the Lister Institute. He injected goat serum into a guinea-pig, and in what is presumably the "negative phase," a second dose, it was rapidly fatal. Moreover, the blood of this dead pig injected into the peritoneal cavity of another pig, even in very small doses, killed it in a few minutes. He made no attempt at an explanation of the phenomenon, and yet it demands elucidation, since it may be enough to check not only the indiscriminate exhibition of horse-serum, which is another of the present-day fashions, but also the progress of vaccine therapy. If it does no more than restrict light-hearted dalliance with noxious organisms, even dead ones, and confine their use to those in whom familiarity has bred a wholesome respect, no great harm will come of it.

The Wassermann reaction has been received in London with skeptical cordiality. The tendency at present seems to be in favor of demanding the demonstration of the spirochete as an accessory before the fatal deed of positive diagnosis. Mr. Keetley read a paper a little while ago at the surgical section of the Royal Society of Medicine that met with but an indifferent reception. His main proposition was that the surgeon should try to preserve the veriform appendix. He adduced Macewen's observations on its physiological utility as a plea, and even found a warrant for his thesis in Metchnikoff's proposals for the postponement of senility. The appendix, he maintains, has a high surgical value as a channel of ingress to and egress from the intestine. As indi-

cations for the operation of appendicostomy he tabulates: colitis of various kinds; certain forms of intussusception, chiefly to prevent recurrence; intestinal hemorrhage; typhoid fever and certain other cases in which enteritis occurs; cases of enterectomy and colectomy, as a safety valve; intestinal distention in toxic conditions; for the administration of nutriment *per appendicem;* and, finally, in intractable constipation. He justifies the transplantation of the appendix so that it lies embedded in the abdominal wall as a treatment of appendicitis, on the ground that it is the intra-peritoneal lie and not the nature of the appendix that is the danger; that many of the structural abnormalities can be righted by plastic measures and the appendix saved to be utilized later on should the unhappy possessor fall a victim to any of the above maladies. Almost the only sympathetic remark made by those who discussed the paper, apart from its reference to colitis, was that as a treatment of constipation it was preferable to Lane's excision of the colon!

Mr. James Berry's communication on traumatic rupture of the intestine, to the same section, had the great value lent by analysis of successive cases. Previous writers have collected cases from the literature, and, therefore, probably included an undue proportion of successes. Mr. Berry's were collected from the records of ten London hospitals. Of 132 cases, 122 were males and 10 females; 14 were children under ten, 32 were between the ages of ten and twenty, and 79 were over twenty years of age; 51 of the cases were due to being run over, 24 to squeeze or crush, 23 to blows, 16 to kicks, and 11 to falls. The great majority of the ruptures affected the small gut; in 22 cases the rupture was multiple, and in 24 other severe injuries coexisted. The mortality was 87 per cent.; of the operated cases, 80 per cent. The conclusions reached were that rupture of the intestine is by no means so rare as is commonly supposed; the early symptoms are few and fairly characteristic; pain, local, severe, and continuous, tenderness, rigidity, and vomiting, together with the history of the accident, afford ample data for diagnosis. If operation be delayed until the abdomen is distended or the liver dullness absent, the patient has practically no chance of recovery; secondary rupture is not uncommon, the symptoms in these cases being often delayed for hours or even days. Rupture of the intestine is usually produced by direct crush and not by bursting or traction; finally, after operation the patient should be sat up in bed and treated with massive saline infusion.

I have mentioned before the close attention now being paid to the health of children in the compulsory education schools of the metropolis. A committee of enquiry have recommended the establishment of special school clinics near the schools, where cases of

defective teeth—and about 90 per cent. of the children are affected thus—eye defects and simple diseases, skin diseases such as ringworm, favus, scabies, and pediculosis, ear defects, and simple diseases, especially "running ears," should be treated. It is a sign of the times; we are coming more and more to the system of treatment by medical officers of great administrative bodies, and, of course, so far as state medicine is concerned, that is inevitable. It is a serious question, however, for the profession, whose average income has been dwindling for years, and, what is more important, a menace to the independence of effort and initiative essential in a progressive science and art.

The very sudden death of Dr. Charles Beevor, physician to the Queen Square Hospital for Paralysis, president of the Neurological Society, and sometime the associate of Sir Victor Horsley in investigations of the cortical centres, came as a shock to his many friends in the profession. Within a few hours of his death, which was due apparently to aortitis, he was presiding at the Neurological Section meeting and in the best of spirits.

Death has been busy, too, among the younger teachers in London. Why is it that so often those are taken whom we can least afford to lose?—*Boston Medical and Surgical Journal.*

ABSTRACTS.

"Get-Well Tablets."—In the *Journal A. M. A.*, December 19, are published extracts from a "form" letter addressed to dentists. It was from the Anti-Corizine Chemical Company, offering a chance for investment, on the presumption that dentists would not object (as physicians would) to sharing large profits from the manufacture of patent medicines. From 400 to 600 per cent. profits are given as what may be normally expected from investments of this kind. The product, "Get-Well Tablets," is stated to be so harmless that "even persons suffering from the severest form of heart disease can take them without danger," and its virtues are due to our old friend, acetanilid, aided and abetted by another drug that is becoming increasingly popular with nostrum mongers—codein. They also contain a small amount of belladonna. A year or two ago the company marketed the same tablet by the name of Anti-Cori-Zine, which was sold and "advertised only to the medical profession" as "a definite synthetic chemical." Evidently the medical profession is not taking so kindly to the acetanilid headache mixtures of the "definite synthetic chemical" type as it once did, and it is now found more profit-

able to advertise to the public direct rather than *via* medical journals and physicians.

Cholesterin in Pernicious Anemia.—First referring to a recent communication by Reicher on the use of cholesterin to combat hemolysins in pernicious anemia, C. E. Simon, Baltimore (*Journal A. M. A.,* December 19), reports his experience with its use in six cases of the disease. His trial of the substance was made, for the same reasons as that of Reicher, over a year ago, but the material being so limited he delayed publication until incited thereto by the appearance of Reicher's article. All six of his cases were typical cryptogenetic pernicious anemia, one being of the so-called aplastic type. In three advanced cases no effect was observed. A fourth patient was discharged unimproved after a three weeks' trial, and in a fifth death occurred before more than twenty-four grams had been administered. In the sixth patient an apparently beneficial effect was produced, but, as it was the first attack, one naturally hesitates in ascribing it to the drug. It is noteworthy, however, that the same effect followed its use in a relapse which occurred some months later. The patient is still living and in good condition. "When first seen the red cells numbered 1,744,000, while the hemoglobin was 46 per cent.; there was then marked anisocytosis with a distinct tendency to macrocytosis; there was poikilocytosis and extensive granular degeneration (so-called). Normoblasts with pyknotic and karolitic nuclei were fairly numerous; there were some free nuclei and a few mitotic cells; megaloblasts were scant. After a three weeks' course of cholesterin, the red cells had increased to 4,000,000 and the hemoglobin to 80 per cent. Anisocytosis was still noticeable, but less marked than before; granular degeneration was slight and there were no nucleated red cells. Subsequently the anemia became more marked again, but, as I said before, the patient improved and at the present time is well." Cholesterin is apparently non-toxic, but it is costly. So far as Simon's results show it would seem to have little value in advanced cases, but may have some utility in early cases.

Medical Jurisprudence and Toxicology.

IN CHARGE OF
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W. A. YOUNG, M.D., L.R.C.P. (LOND.).

AGAINST MEDICAL EXPERTS

THE New York State Bar Association took action last month which may be the beginning of a reform in legal procedure, especially as related to criminal trials, of great interest to laymen as well as lawyers. This was the unanimous adoption of the report of the committee on medical expert testimony. The action came only after long argument and considerable opposition from those lawyers who believed either that the proposed reform did not go far enough or that it was not adapted to bring about the desired results. Judge A. T. Clearwater, of Kingston, chairman of the committee, scored so powerfully in his closing argument in favor of his committee's report that it was not only adopted, but adopted unanimously.

Protesting against "the commercializing of scientific knowledge," which lessens its accuracy and value, the report makes a plea for the insuring of such conditions that expert witnesses without regard to anything but justice and truth, may give their testimony without bias and without being subjected to improper and contemptuous cross-examinations, misrepresentations and other things tending to create an atmosphere in which the scientific mind cannot be expected to reason calmly and logically.

The committee's report included a proposed statute as a beginning of the desired reform. It provides briefly that Justices of the Appellate Division shall designate at least ten and not more than sixty physicians in each judicial district, who may be called as medical expert witnesses by the trial court or by any party to a civil or criminal action; when so called they shall testify and be subject, like other witnesses, to examination and cross-examination. They shall be paid out of the county funds on the order of the Trial Judge, who shall also decide the amount of the fee.

Judge Clearwater, in presenting his committee's report, laid stress upon the fact that eighteen physicians, representing the allopathic, homœopathic and eclectic schools of the State, agreed with six of the nine lawyers on the committee on the report as presented. This alone, he contended, was not only a noteworthy event, but one that should go far toward establishing the excellence of the recommendations of the report.

"Recent excavations," said Judge Clearwater, "unearthed an ancient scroll which showed that the doctors of Chaldea disagreed over the disease of their monarch. They have disagreed ever since, and I am presenting the first instance of an agreement by them on anything."

Judge John M. Davy, a member of the committee, opposed the adoption of the report in an extended speech. Simon Fleischman also objected to the proposed statute. The opposition had manifested much strength, and when Frederick Hinrichs, of Brooklyn, arose to move that the whole matter be referred back to the committee with full power to investigate and make recommendations to the Legislature, he was applauded. It was then that Judge Clearwater made a closing plea for the adoption of the report. The lawyers listened attentively, applauded enthusiastically when he sat down, and then adopted the report unanimously. The report in part follows:

"It is apparent to all that theoretically an expert is a scientist interested solely in facts, who should retain freedom of judgment and liberty of speech and should be free from the embarrassment of any personal relations to or with the parties to an action; that he should have no client to serve and no partisan interest or opinions to vindicate; that he should give his opinion as the advocate neither of another nor himself; that when he speaks he should do so judicially as the representative of the special branch of science which he invokes, governed by the opinion of the great body of scientists in this relation and in accordance with their most recent investigations.

"That no one should be permitted to distort, pervert or misrepresent his testimony; that when this is done and not until it is done shall we have expert testimony rescued from the disrepute into which it has fallen and thus elevated to its true position as the expression of the particular science for which it speaks; that by the adoption of some such system the mature judgment of the best minds could be obtained and the superficial opinions of quacks and mountebanks would not be thrust upon the jury to their confusion and the hindrance of justice; that such scientific open-mindedness is almost impossible where the expert entirely depends for his emolument upon the good graces of contending parties and largely is without the recognition and protection of the court.

"That the commercializing of scientific knowledge under the existing conditions lessens its accuracy and value. That the enormous modern development of special knowledge makes doubt and controversy among experts hired to create it inevitable and aggravates the evils of private expert hire, unscrupulous so-called experts finding it easy to lease themselves and their opinions to aggrieved and aggressive parties who may profit either fairly or

unfairly by the technicalities and doubts which they are able to inject into the case in full consciousness that no rebuke will be administered by the tribunal before which their testimony is given; that therefore the gravest abuses, not to say scandals, in the introduction of medical expert testimony have arisen until it has come commonly to be believed that such witnesses are so biassed if not corrupt that hardly any weight should be given to their opinions."

The report says it is within the power of the judges to require greater competence on the part of so-called experts and that if they will do this and are backed up by the Appellate Division justice "will be rid of corrupt and worthless so-called experts."

Accompanying this report was a draft of the proposed bill. It provides that experts shall receive merely witness fees at trial unless otherwise ordered by the court. A violation of this makes the violator guilty of a misdemeanor.

Not more than three experts shall be allowed to testify on either side except in homicide prosecutions, unless otherwise permitted by the court.

In a homicide case the court shall appoint "one or more suitable disinterested persons, not exceeding three," to investigate the issues and testify at the trial. The compensation for such witnesses is to be fixed by the court and paid by the county where the indictment was found.—*Exchange.* W. A. Y.

EXPERT MEDICAL EVIDENCE

Recent Canadian and American acquittals of murderers on the ground of insanity have induced criticism of expert medical testimony. It is noteworthy that the New York State Medical Society has adopted a resolution favoring a limited and uniform system for the securing of expert medical evidence in civil and criminal cases.

A year ago a joint committee of the Medical Society and the State Bar Association instituted an investigation into the evils growing out of the employment of medical experts as court witnesses. This committee now advises that the Appellate Divisions be authorized by the Legislature to appoint not fewer than ten nor more than sixty physicians from their respective judicial departments to act as official medical experts.

But the important feature of the recommendation is that the county in which the action is tried shall bear the expense of the service of these qualified medical witnesses. The expectation is that medical testimony thus obtained is likely to be more trustworthy than when it is secured at the expense of the prosecution and the defence.—*Toronto Star.* W. A. Y.

TWILIGHT THOUGHTS

Moment by moment this month has dawned upon us, and moment by moment it will depart.

Moment by moment the Fall stole by, the skies grew grey and heavy, while the sun slipped the earlier to sleep.

Moment by moment the winds blew, the leaves fell and the limbs waved skeleton arms to the winds of winter.

Winter is here, but moment by moment 'tis stealing by, and spring will soon be knocking.

Life is only a succession of seconds.

Moment by moment we plod on, our lasting successes being accomplished gradually, and our failures in the same slow way.

We do not achieve at once, for no real success is made in a day, but moment by moment we strive to win.

We do not make our sweetest friendships in an hour, but moment by moment, day in, day out, we learn to love, and thus gradually dawn the new phases in the lives of our friends.

Our lasting hates are not the result of sudden conclusion, but of moment by moment.

All nature moves majestically to the rhythm of the eternal clock, moment by moment.

There is no running fast and slow, and we look to the skies, to the sun and stars to regulate our little clocks on our tiny towers.

Moment by moment January has fled.

Moment by moment we have missed our golden opportunities or made our gains.

The ways of nature that we like best are accomplished little by little.

The snowstorm came flake by flake, and the ingenuity of men planned to overcome the little crystals as they blocked the rails.

Tiny and beautiful they fell on a winter's day, but February will flee, and March will tick in and out again, and April will come with her welcome rains, drop by drop, to kiss the old earth, and make her laugh flowers.

Not by a sudden sweep will the warm winds come, nor by convulsions of the earth, but moment by moment, and Spring is here.

Then twig by twig will the robins build and thatch, and, lifting our eyes to the lovely skies, we will look to the sun as it sinks moment by moment to the horizon, and on from vision.

Then we will watch the swallows as they drop down the old mill chimney, one by one, and the night will still further deepen, moment by moment.—*Toronto Star.*

The Canadian Journal of Medicine and Surgery

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Editorials.

NECESSITY OF PHYSICAL EDUCATION AND DRILL IN PUBLIC SCHOOLS, COLLEGIATE INSTITUTES AND HIGH SCHOOLS.

During an address given at the University of Toronto, February 4, 1909, Major-General Lake, Inspector-General of the forces in Canada, declared that Canadians must be prepared to stand to arms in defence of not only their homes, but of all that goes to

make up civilization according to western ideals. He advocated the subject of national defence, the necessity of which depended on the great awakening going on in Japan, China and India. He thought that the desire for expansion on the part of these big Oriental nations would oblige not only the men of Canada, but every white man of America, to be prepared to defend this continent against the invasion of Asiatics. He said: "How far are we going to share this country with the Eastern peoples? Are their ideals, moral and religious, and their family life to obtain here, as opposed to western ideals? If mere argument will not prevail, we shall need force behind, and must prepare to fight for our ideals." Animated by the necessity of preparing the young men of Canada to defend it, he advocated physical culture in the public schools and military drill in the high schools. It may have occurred to him that, among the thousands of young men who attend the different courses at the University of Toronto, there would be the making of a smart rifle regiment, two batteries of artillery, and a company of engineers.

Even if Major-General Lake's opinion about the yellow peril is baseless, his advice as to the advantages of giving a military training to the youth of Canada holds good, from the standpoint of hygiene. But when we endeavor to apply his advice to existing circumstances in Ontario, difficulties present themselves. He advocates physical culture in public schools and military drill in high schools. Physical culture presupposes teachers, but women are not competent to teach drill and gymnastics to boys, and, as a matter of fact, 80.94 per cent. of the public school teachers of Ontario are women. As a large percentage of boys in Ontario do not enter high schools, but start, on leaving the public school, to follow some trade or business, their physical education would be neither more nor less than what they have received at the public school. The regulations of the Education Department of Ontario make it obligatory that drill, calisthenics and gymnastics shall be taken up in collegiate institutes; but, "in high schools having no gymnasium, drill and calisthenics shall be taken up at the discretion of the principal, as often as the weather, the accommodations and the adequacy of the staff will permit, and gymnastics may be omitted."

From the report of the Minister of Education, Province of Ontario, for the year 1907, we find that in Ontario there are

42 collegiate institutes, 34 of which have a gymnasium ; total attendance, 15,533 ; boys, 7,238 ; girls, 8,315 ; taking physical education, 12,448. There are 100 high schools, 8 of which have a gymnasium ; total attendance, 13,839 ; boys, 6,098 ; girls, 7,741 ; taking physical education, 2,316. Grand total attending collegiate institutes and high schools, 29,372 ; boys, 13,336 ; girls, 16,056 ; taking physical education, 14,764. In 36 collegiate institutes and high schools there is a drilled cadet corps ; 6 cadet corps belong to the Toronto Public Schools ; total, 42 cadet corps ; 1,896 officers, N. C. officers and boys. Physical education is provided for 80.13 per cent. of the pupils of collegiate institutes, for 16.7 per cent. of the pupils of high schools, the sex not being stated in either case. The cadet corps show, in a creditable manner, the effects of drill given to the boys in the schools. There is room for improvement in teaching physical culture to the boys in the public and high schools of Ontario. To leave the public school or high school with a knowledge of drill sufficient to enable him to take his place easily in the ranks of a volunteer company should be made possible to every lad of sound health in Ontario. Apart from the educational value of drill, young men in Ontario are fortunate in having a volunteer service open to them, wherein pleasurable exercise harmonizes with military duty and love of country. In many of our cities and towns volunteer regiments afford opportunities to young men for bodily exercise of the best possible kind. More efforts might be made by the officers of volunteer regiments to promote physical culture among the men, and the military service of Canada would be rendered more efficient if more drill sheds were supplied, in which exercise and drill could be practised by volunteers in winter.

A more efficient military training in company, battalion and brigade movements, a more practical knowledge of the use of the rifle, with, of course, a prime condition of health, would result from an extensive system of military camps in summer. Such action would call for a large expenditure of money by the Federal Government, but money so spent would yield a fruitful return in the improved vigor and strength of the youth of the country. Should any occasion for the services of the volunteers arise, the training of the men in the proper use of arms, their habits of discipline and fidelity to duty would be valuable assets to the nation.

J. J. C.

THE WORK DONE BY THE MILK COMMISSION OF THE ACADEMY OF MEDICINE.

PURE air, pure water, pure milk! As the man-made cities grow larger and larger, the cry of the children is for free air and sunshine, and the town dweller rivals Lazarus in his cry for a drop of pure water, for his usual beverage has been something akin to the quality of mercy—not strained. As for the city milk, the man who drinks it has been taking a sporting chance of being either embalmed or of acquiring tuberculosis. Now a better day is dawning in Toronto, with free playgrounds for the children assured, the rights of all citizens to pure water acclaimed, and the powers that be made to listen; and the demand for pure milk has been championed by a Commission appointed by the Academy of Medicine, and their work is being carried on successfully.

It seems almost fulsome in discussing this subject with physicians to speak of the need of pure milk in the diet of the sick and its usefulness in the nourishing of infant life. Even race horses trained on dried milk are said to possess great endurance. Enough surely has been written and spoken of the havoc wrought by impure milk and the mischief it has done in spreading the dread white plague. Some time ago the Academy of Medicine took up work in earnest by appointing a Commission, with Dr. H. T. Machell, as chairman, to enquire into the milk supply of this city.

The first meeting of the Milk Commission took place in October last, two days after its appointment, so that the members got to work without delay. The first thing the Commission did was to apply to the Honorable Mr. Hanna for the use of the Laboratory of the Provincial Board of Health, and, after a little delay, this permission was duly granted by the Department. The Honorable Minister found, however, that in so doing he would have to issue similar permission for the use of the Laboratories at London, Hamilton and Kingston. The Commission almost at once appointed their Veterinary Inspector and got to work in earnest. The members made a personal visit, first, to Erindale Farm, and inspected the byres there very carefully, going into every detail regarding the milk supply. After careful and long consideration as to the necessary requirements regarding milk in the City of Toronto and its supply to the public by the different

firms, the following requirements were settled upon and have thus far been agreed to by two of the large dairy farms.

Cows.—The cows must be tuberculin tested. The new ones to be tested before admission into the herd and the whole herd tested once a year.

Chemical Standard.—Milk must not contain more than 88 per cent. of water, not less than 12 per cent. of solids, must contain at least 4 per cent. of fat (with a variation of 1 per cent., according to the season of the year), must contain 3½ per cent. of proteids (with a similar variation of 1 per cent.), the maximum degree of acidity not to exceed 2 per cent., the specific gravity to average 1.031. The milk must contain no preservative and there must be no heating.

Bacterial Standard.—The milk must contain less than ten thousand bacteria per cubic centimeter in the summer, and less than five thousand in the winter. There must be no injurious germs and no pus cells.

Temperature of Milk.—The cooling of the milk is to be commenced at once after milking. The temperature must be less than 45 deg. F. in half an hour after milking and kept at that temperature or less until delivered to the consumer.

Demand Exceeding Supply.—If milk is required by a physician, the holder of a physician's order must at all times be considered a preferred purchaser.

Delivery.—Milk must be delivered within twenty-four hours after milking.

It will, therefore, be seen that if a majority of the dairies in the City of Toronto agree to the requirements laid down by the Milk Commission of the Academy of Medicine, the public are guaranteed a supply of pure milk at all seasons of the year. The Veterinary Inspector appointed by the Commission shall visit the dairies at any time he so desires, and he shall have liberty to take a bottle of milk from the wagon of any such firm at any time for examination. The Commission insist that all the cows be clipped and must be scrubbed once daily. They have arranged, not only that all bottles shall be sterilized, but that every bottle shall be dated. Each bottle is first covered with a paper fibre cap, over which is placed a piece of parchment on which will be found the seal of the Commission. In more than one instance already certain cows in the different byres have been ordered to be

slaughtered, on account of their showing the presence of tuberculosis, and due credit must be given to the firms for consenting to this, notwithstanding the fact that the animals destroyed were valuable. In order to show the work already done by the Milk Commission in this city, one of the large hospitals had its milk supply examined, the result being that it was found to be very little short of sewage and contained between four and five million bacteria to the cubic centimeter. Needless to say, the contract for this milk supply was at once cancelled. Another firm whose milk showed over ten thousand bacteria to the cubic centimeter were able to put on the market milk, quite recently, showing a little over one hundred bacteria. We welcome the Milk Commission in our midst. May they, like good cream, always be proud to be men who have risen to the top. W. A. Y.

THE LILY OR THE DEADLY NIGHTSHADE—WHICH?

Glancing at an item in the daily press recently, the statement was noticed, that out in a city in British Columbia the Chinese were to help to build a university, by contributing a large amount of the money needed. The item went on to say that of course Chinese students would come there in large numbers, instead of attending the universities in the United States. What a pity! The little yellow man will first contribute, then dominate, and then perchance control. 'Tis a little way he has. Who among the men in the Great Last West are going to place their sons shoulder to shoulder in class room or clinic with colored men? What a joke for the gods a class dinner of the future would be—first, the white man, with his gentle breeding and elegant deportment; on his right a Japanese, on his left a Chinaman, adorning the foot of the festive board, perhaps, a Longboat by some other name, and his right bower a son of Africa, picking a chicken bone. It would require fate to have made one an owl to gaze on such a scene and refrain from blinking. While we deny none the right of educational advantages in our goodly land, yet the line must be carefully drawn as to those who are eligible as even residents of Canada, let alone controllers of our educational institutions. In the grand old days, a part of university life was the comradeship and friendship reaching out into after life, a thing we trust to be cherished and fought for in the days to come.

In many places our universities have become co-educational. The lily and the nightshade entwined would be indeed a gruesome emblem.

A sight once seen in old Edinburgh has forever made race prejudice strong within—that of twin children, one black, the other white and fair-haired, belonging to a physician's daughter, who had perpetrated the crime of marrying a graduate in medicine (of the Edinburgh University), from India, a person of high caste. She had met him socially at her own father's dinner table. Keep our universities white.

"Bring no new Yellow race,
Or Black, or Brown, to spot *Columbia's* face,
The White Man's field;
Won for the generations long
Of White Men's children, to whom belong
The future's yield.
For pure blood's more than gain,
Of luscious fruit, or of ripened grain,
Of wood or gold.
Hate none, but know that Breed and Blood
Dictate the limits of Man's Brotherhood,
And bound each fold."

W. A. Y.

WHERE SHOULD PEDIATRICS BE TAUGHT?

A careful study of approved text-books is helpful in acquiring a general knowledge of pediatrics. Didactic lectures are also serviceable; but, if unsupported by clinical material, they do not count for much. The most appropriate place for receiving instruction in the diseases of childhood is a dispensary or hospital for sick children, where painstaking clinicians suggest to the budding practitioner the best methods of gaining an inkling of a difficult subject.

In Toronto, the student of medicine can have access to the Hospital for Sick Children, College Street, devoted to the treatment of the medical and surgical diseases of childhood, with the specialties—diseases of the eye, ear, nose and throat, and orthopedics—clinical instruction in the same being given there daily by members of the visiting staff, who are professors of the University of Toronto. Twenty-five didactic lectures on medical pediatrics are given by two professors of the University of Toronto. Clinical

instruction in the contagious diseases of children is also given at the Toronto Contagious Diseases Hospital.

The Montreal General Hospital has a special ward devoted to children, and has a special outdoor clinic for children twice a week. So, also, has the Royal Victoria Hospital. The Children's Memorial Hospital, on Cedar Avenue, which is almost completed, will have a capacity of about eighty beds.

Lectures, both didactic and clinical, are delivered to fourth year students by professors of McGill University during the winter and spring terms, and students attend, in groups of four, during the session at the out-patient clinics. Instruction is given in orthopedics, and in diseases of the eye, ear, nose and throat, each in a special department at McGill University. Except in connection with general medicine, there are no clinics specially for children in Montreal. At Laval University, the medical department of which is situated at Montreal, pediatrics is taught by a special professor, who gives didactic and clinical teaching. This University has a dispensary in one hospital in Montreal, and the senior students visit a contagious diseases hospital, St. Paul's, in groups. Surgery is not divided from medicine, in teaching this branch. At the Western University, London, Ont., there is a course of 20 lectures on medical pediatrics. There is no separate course on surgical pediatrics, which is taken up, to a certain extent, in the surgical course. There is no clinical instruction except in cases met with at the Victoria Hospital (City Hospital). At Queen's University, Kingston, Ont., the Associate Professor of Obstetrics gives a course of lectures on medical pediatrics. Surgical pediatrics as a separate subject is not taken up, but the Professor of Surgery covers the ground in his lectures on general surgery. Clinical instruction in this subject is given at the Kingston General Hospital.

Owing to a growing tendency noticed among doctors engaged in medical teaching in North American medical colleges, to class themselves as physicians or surgeons, in their practice among adults, a similar line of cleavage is beginning to become apparent among pediatrists. From what has been said above, it will be seen that a division into medical and surgical pediatrists has not yet been declared in Canada. It may come, later on, and the

dawn of such a division will probably begin to appear as a sequence to a more thorough specialization of clinical teaching in the hospitals for sick children.

In his presidential address, at the second annual meeting of the Association of American Teachers of the Diseases of Children, Chicago, June 1, 1908, Dr. Samuel W. Kelly, Cleveland, took occasion to note the neglect of the surgical side of pediatrics in American colleges. In 1896, of sixty-three colleges, who gave him information on this question, only twenty-six professed to teach surgical as well as medical pediatrics. Thirty-seven acknowledged that they taught only the medical side of the subject. Dr. Kelly, also, criticized the shortcomings of the text-books on pediatrics, in few of which is reference made to the surgical side of the diseases of infancy and childhood. He does not intend to assert that pediatrics is a branch invariably badly taught in the United States, or that there are no colleges which teach it excellently, or that there is disharmony in medical faculties, or between teachers and clinicians concerning this subject. He does wish to say that there is no college in which the ideal teaching of pediatrics has been reached, and that there are many where it is not well taught. He closed his address with an appeal for united effort among pediatrists to improve the teaching of their specialty in American medical colleges. Should the uplifting effort be successful, the results will be, as he puts it: "A more thorough preparation of medical men, a better service to the public, and more respect for the child's doctor in every community." These reasons are strong enough to persuade North American medical faculties to aim at raising the teaching of pediatrics to an ideal plane. J. J. C.

PRESENTATION BY MR. E. B. OSLER TO THE ACADEMY OF MEDICINE.

With his usual generosity, Mr. E. B. Osler, M.P., of Toronto, has presented to the Academy of Medicine an exceedingly interesting and most valuable collection of portraits and other engravings, selected by himself when on a recent visit to Paris. The collection is well worth careful study, containing, as it does, a number of subjects dear to the heart of a medical man. The collection includes an engraving made from Holbein's celebrated

painting, "Henry VIII. granting the charter to the Barber-Surgeons, London, 1547." This original painting is valued at £80,000. Another engraving, one perhaps better known to the medical profession, is "Une Lecon du Docteur Charcot a la Salpetriere." There are also many portraits of celebrated medical men, whose names are familiar to every student of medicine, including Abernethy, Bichat, Lavater, Borelli, Larry, Cromel, and others.

The Academy of Medicine is certainly under a great debt of gratitude to Mr. Osler for his handsome donation, a gift that will be a perpetual source of pleasure. W. A. Y.

THE WINNIPEG MEETING OF THE CANADIAN MEDICAL ASSOCIATION

Dr. Blanchard, of Winnipeg, President of the Canadian Medical Association, spent a few days in Toronto last month, and on the evening of February ninth addressed the Section on Medicine at the Academy of Medicine. His remarks dealt largely with the arrangements already completed for the meeting of the Canadian Medical Association, next August. He impressed upon his hearers the fact that the 1909 meeting was undoubtedly going to be the best one that has been held for many years, and he urged every one to be present, as nearly as possible. The Canadian Medical Association meets in Winnipeg three days prior to the meeting of the British Scientific Association, so that those who attend the former can wait over and attend that of the British Scientific Association as well, on payment of an additional fee of $10. The profession of Winnipeg are prepared to entertain the visiting members in the most lavish manner, though, as Dr. Blanchard said, the scientific side of the meeting would not be by any means overlooked. Dr. Blanchard proposed that a symposium on Diseases of the Kidney be given at one of the afternoon sessions. The usual reception will be held the evening of the first day, with numerous private dinners and other entertainments. We trust that our readers will bear particularly in mind the meeting of the Canadian Medical Association next August, and arrange to take their holiday at that time. W. A. Y.

EDITORIAL NOTES.

Dangerous Epileptics.—Physicians and the general public know of the hurts and severe bodily injuries which befall the confirmed epileptic. Physicians also know that an epileptic is occasionally attacked with mania, which renders the patient dangerous to others and sometimes homicidal. In cases of larval epilepsy, violent actions have been committed and assaults made, sometimes giving rise to questions which come before the courts. Although this much is quite true, it will to most persons seem strange, that epilepsy in an accused person is to be received as a valid excuse for murder. As the result of a recent trial for murder, at London, Ont., Judge Meredith called the grand jury together and pointed out to them the danger in which the community is placed by the presence of epileptics, who may be seized, at any time, with an attack of mania, during which they may commit some crime. Judge Meredith said: "The trial just over seems to me to show clearly that it is practically impossible to convict anyone subject to epilepsy of any act which he or she may commit, except under special circumstances." Regarding the homicidal inclinations of an epileptic, Flint writes in his *Practice of Medicine*, "An epileptic under my observation, a quiet, docile man, has repeatedly said to me, with an appearance of much concern, that he had fears he might kill some one. He stated that he was conscious at the moment of an intense desire to kill anyone who irritated him." Perhaps, if Flint's patient had been a soldier, with a large supply of ball cartridge in his possession, he might, in a moment of irritation, have shot a comrade. The occasion makes the criminal; and, in view of the allowance made for the irresponsibility of epileptics, such persons should certainly not be recruited as soldiers. The plea of epilepsy will probably be heard of again in trials for murder.

The Unlicensed Sale of Poisons Causes Death.—Pharmacists are obliged by law to register the sale of poisons—a law sometimes more honored in the breach than in the observance. Recently, in this city, a girl sent a messenger to a pharmacy for ten cents' worth of morphine, and a paper containing about twelve grains of the deadly drug was handed to the messenger with no more ceremony

than if it had been so much bicarbonate of sodium. The girl for whom the morphine was bought took about half the powder at one dose, about 11 p.m., one evening, and in due time fell into a comatose state, which terminated in death next day, about twenty hours after the poison had been taken. It has been remarked that most cases of poisoning by opium prove fatal in from six to twelve hours, so that this case of poisoning by morphine was rather protracted. Referring to protracted cases of morphine poisoning, the author of *Taylor's Medical Jurisprudence* says: "I have known one case fatal in twenty-two hours, and among those collected by Sir R. Christison, the longest lasted twenty-four hours." From the evidence given before the coroner, who made enquiry into the cause of death, it was proved that the unfortunate girl received no medical assistance until about sixteen hours had elapsed from the time the poison was taken. It would appear, therefore, that the physician who attended her, Dr. E. Herbert Adams, had a hopeless task on his hands, owing to the fact that a poisonous dose of morphine had had ample time to expend its influence on the patient's blood and nervous centres, making her recovery impossible.

Doctored or Falsified.—Slang meanings of the word *doctored* are: To tamper with and arrange for one's own purposes; to falsify; to adulterate, as to *doctor* election returns, to doctor whisky. Popular cant words are not amiss in the mouths of cabmen, sailors, street-hawkers, sportsmen, colored minstrels, and others, who love popular but unauthorized words. Literally all such people love to sling the jaw, to use abusive language, insulting words, words that have no just reason for being. It is regrettable, therefore, to see the word *doctored* countenanced by a reputable Toronto morning newspaper. It appeared in a report of one of the early debates held this session in the Canadian House of Commons. The ideas suggested are: A doctored telegram is a falsified telegram; by implication, doctoring is the practice of falsification, and a doctor is a falsifier. These are not the ideas which obtain credence in this country. In Canada, well-equipped medical colleges are supported by public and private funds; provincial and municipal funds are expended in maintaining hospitals, where the well-to-do and the poor are doctored by highly-trained doctors.

Ascites in Typhoid Fever.—Ascites not being a disease, but an aggregation of symptoms, the diagnosis should not be limited to the demonstration of ascites alone, but should, at the same time, determine the original affection causing it. Text-books of the Practice of Medicine do not mention ascites as a symptom of typhoid fever, but in an Annotation which appeared in the *Lancet,* November 28th, 1908, and in a paper published in this magazine, January, 1909, Dr. McPhedran, Professor of Medicine in Toronto University, states that typhoid fever may be the efficient cause of ascites, apart from peritonitis. Six cases of typhoid fever are described in Dr. McPhedran's paper. In five of them ascites took place during the progress of the fever, persisted for about ten days or two weeks and disappeared with convalescence. In a sixth case peritoneal effusion took place; but it did not clear up promptly, for the patient "left the hospital in good condition, but with a considerable quantity of fluid still in the peritoneum." The six cases terminated in recovery. It is not stated that chemical or microscopical examination of samples of the effused fluids were made, so that we must accept the statement in the paper, that in five of the cases, the effusion into the peritoneum was dropsical, and in the sixth case inflammatory—probably of a tubercular character. That ascites may occur in typhoid fever is also shown by Dr. F. J. Poynton, who, in the *Lancet,* January 2, 1909, mentions a case of abdominal illness in which the diagnosis lay between appendicitis and typhoid fever. To settle the question of diagnosis, Dr. Poynton had an exploratory incision made by a surgeon in the region of the appendix. Clear fluid escaped from the incision, and some of the fluid being taken up in a sterilized pipette was found to be swarming with the bacillus typhosus. Dr. Poynton's case afterwards ran a typical typhoid course and terminated in recovery. Dr. Poynton thought the ascites in his case was due to an intense congestion of the peritoneum. Dr. McPhedran thought that "in at least four of his six cases, the effusion, so far as can be determined, was due to pathological conditions resulting from typhoid infection." He thought that the immediate cause of the peritoneal effusion was uncertain, but suggested a relaxed state of the abdomen, enlargement of the mesenteric glands and toxemia. In a monograph on diseases of the liver, which appeared in *Sajous' Annual and Analytical Cyclopedia of Practical Medi-*

cine, 1899, Dr. McPhedran said, that active congestion of the liver, resulting from the action of a toxic agent, such as typhoid fever, will produce ascites. If one were willing to find a short road to explain the anomalous ascites noted in five of Dr. McPhedran's cases of typhoid fever, this one might be accepted, and it seems seductive enough, too; for, in these same cases, the ascites promptly disappeared after the fever left—when the liver had returned to a normal condition. The weak point about such an attempt to explain ascites in typhoid fever is that it proves too much; once admitted, nearly every case of typhoid fever should have ascites. As ascites in typhoid fever has not been noted by writers, and its rationale cannot be explained by clinicians, it remains for pathologists to show the true cause of this phenomenon. In the meantime, Dr. McPhedran deserves credit for making an original contribution to the already enormous symptomatology of typhoid fever.

Dementia Praecox or Adolescent Insanity.—In a paper published in the *Medical Press* (London), January 6, 1909, Dr. Robert Jones discusses at length the terminology of dementia præcox. He describes the three forms given in Kraepelin's classification—hebephrenia, katatonia, and the paranoid form, together with the symptoms associated with each of them. In reference to the symptoms of these closely-allied varieties, he denies that they are different forms of insanity, or that they are limited to adolescence. He also remarks: "If Kraepelin's classification be a typical one, then I can only say that in Claybury Asylum, with nearly 2,500 patients, there are not more than 5 per 1,000 cases of dementia præcox among the total population; whereas, Kraepelin, I believe, considers that the vast majority of the residents in institutions for the insane are cases of this form." Dr. Jones objects to the term dementia præcox, because, while loss of memory can be relied upon as characteristic of true dementia, so called cases of dementia præcox are most retentive in their memories. A hard crack at Kraepelin's terminology is the following: "A terminology which suggests the ultimate termination of a disorder is, in my opinion, somewhat premature and inapplicable at its inception, more especially if, as in these cases, there is occasional recovery." As about 8 per cent. of the hebephrenic form and 13 per cent. of the katatonic form of the disease called dementia præ-

cox recover, he agrees with Dr. Clouston in thinking that the application of the term dementia præcox to a whole group of adolescent cases of insanity, curable and incurable, is confusing and unscientific. He also asserts the curability of many cases of so-called demenetia præcox in these words : " In my experience for the last five years at Claybury, 2,879 young men and women between the ages of 10 and 25 have been received, a slight majority of them being females, and recoveries occurred in 36 per cent. Clearly, therefore, the term ' dementia ' is out of place." His conclusions are as follows : (1) There is no definite disease "dementia præcox." The descriptions applied cover almost every possible variety of insanity. (2) The term " dementia " is inapplicable, because it connotes permanent and irrecoverable loss of mental function. (3) The application of " dementia " is unsatisfactory to cases in which loss of memory is not a prominent early symptom. (4) The term does not state whether it is the terminal stage or the stuporose condition, which is of primary importance. (5) The qualifying adjective " præcox " is equivocal, in so far as it leaves it doubtful whether the diseased condition evolves precociously, or whether it is stated to occur in early life or youth. It is therefore a vague and indefinite term, as these symptoms are also known at maturity and even at the menopause, and, therefore, they should find no place in a scientific or logical classification. (6) A term which implies a definite entity, and which, with some, is becoming more accepted as such, should be distinguished by definite pathological findings, which is not the case. (7) Finally, it is more in harmony with practice, and of greater help to diagnosis and treatment, to use, in place of " dementia præcox," the term " adolescent insanity," suitably subdivided, as at present.

J. J. C.

PERSONALS.

Dr. Herbert Bruce spent 10 days, early in January, with Dr. Crile, Cleveland, O.

Dr. Chas. A. Page, Trinity, 1898, late of Kingsville, has settled at 105 Bloor St. West.

Dr. G. R. McDonagh, of Toronto, is in South Africa, but expects to return about April 1st.

Dr. H. T. Machell is spending a few weeks in Washington, D.C., in order to recover from a recent illness.

Dr. F. N. G. Starr has, we are glad to say, entirely recovered from his recent illness and is again hard at work.

Dr. Norman K. Wilson, son of Dr. W. J. Wilson, College Street, and who graduated last fall, is practising with his father.

Dr. W. W. Ogden, of Spadina Ave., has been seriously ill at his home on Spadina Ave.; but will, we hope, soon be up and around.

Dr. James P. Warbasse, formerly editor of the *New York State Medical Journal,* has joined the editorial staff of the *American Journal of Surgery.*

Dr. George H. McLaren, late Resident Surgical Officer Birmingham Eye Hospital, and Inspector of Ophthalmic Hospitals for the Egyptian Government, desires to announce that he will confine his practice entirely to diseases of the eye.

Dr. and Mrs. John Caven, of this city, have left for Florida, where they intend remaining till the end of March. Their experience on the White Star S.S. Republic was most harrowing, and Dr. Caven says that he is satisfied now to travel by land. We trust that our good friends will entirely recover from their wreck experience and return to Toronto as well as ever.

Drs. Perry Goldsmith and Gibb Wishart spent the last week of February in Chicago attending a meeting of the American Laryngological Association.

It is a matter of sincere congratulation that the Hospital By-law, as recently presented to the citizens of Toronto to vote on, passed by a goodly majority. No money could be put to better advantage than the manner in which this $150,000 will be expended, and it will be but a few months before the citizens will benefit by considerably enlarged and improved hospital accommodation.

Every member of the profession will sincerely regret to learn of the serious illness of Dr. Jas. H. Richardson, of St. Joseph St., one of the fathers of medicine in Toronto. The doctor was in the General Hospital in December, being treated for bladder trouble consequent upon old age, but was able to go home after being in bed for about two weeks. He took ill again early last month, and, as we go to press, was in a serious conditon, especially for one who has attained to so ripe an age. We are sure that we voice the feelings of every member of the profession when we say that we hope the dear old gentleman will soon again regain his normal health.

The late Dr. Donald Gillespie, of Cannington, Ont., pursued his studies till graduation, in 1860, entirely at the Medical Department of Victoria University. He was always an earnest, industrious student throughout his course, thus foreshadowing his future career as a medical practitioner. He began practice with Dr. Martin, in Manilla, Ont., but in 1862 settled in Cannington, where he soon built up an extensive practice, and was much beloved as a careful and faithful physician. He practised his profession in Cannington till his death, which occurred Dec. 22, 1908. His memory will be long cherished and his loss much felt in the locality where he spent practically his entire and most useful professional life.

News of the Month.

TORONTO'S NEW JAIL SURGEON.

After considerable opposition on the part of several members of the City Council, Dr. W. T. Parry, of Spadina Avenue, was duly appointed Surgeon to Toronto Jail on February 15th. The vacancy to this municipal office, created by the resignation last month of Dr. James H. Richardson, who has occupied the position for just fifty years, necessitated that the matter should come before both the Board of Control and the City Council at two subsequent meetings. Dr. Parry did not by any means have all his own way in this matter, as he was opposed by Drs. Sneath, J. Noble, E. E. King, E. H. Green, J. E. Forfar, McNichol and J. J. Gee. He was, however, appointed by a small majority.

Dr. Parry was born in Dunville, Ontario, in 1860. He attended Toronto School of Medicine and graduated in 1885, going subsequently to London and taking the degree of L.R.C.P. in 1886, and the additional degree of M.R.C.S. a year later. Dr. Parry for some years practised on Bathurst Street; but purchased a handsome residence on Spadina Avenue many years ago, where he has practised ever since.

A New Medical Journal for the North-West.—We have been favored by our friend, Dr. Harry Morrell, of Winnipeg, with Vol. 1, No. 1, of *The Saskatchewan Medical Journal.* We notice that Dr. Morrell is chairman of the publication committee, and Dr. G. H. Charlton secretary-treasurer. The first issue contains original articles by Drs. Geo. A. Bingham, of Toronto; Jas. McLeod, Regina; H. E. Munro, Saskatoon; C. A. Henry, Yorkton; G. R. Peterson, Saskatoon; J. C. Black, Regina. Besides about thirty pages of original matter, the issue contains the report of the third annual meeting of the Saskatchewan Medical Association, as also some editorial material, news items, book reviews, etc. We take this opportunity of congratulating Drs. Morrell and Charlton upon their good start and wish them every success.

Physician's Library

BOOK REVIEWS.

General Surgery. A presentation of the scientific principles upon which the practice of modern surgery is based. By Elrich Lexer, M.D., professor of surgery, University of Königsberg. American edition edited by Arthur Dean Bevan, M.D., professor of surgery, Rush Medical College, Chicago. Authorized translation from the second German edition by Dean Lewis, M.D., assistant professor of surgery, Rush Medical College. Pages xxix. and 1,041, with 451 illustrations. New York: D. Appleton & Co. Toronto agents: D. T. McAinsh & Co.

Had this work been written in Great Britain or in America its title would likely have been either the "Principles of Surgery" or the "Science of Surgery." The Continental usage, calling this great division "general surgery," has been here followed. The other great division, known to us as the practice or the art of surgery, and on the Continent as regional surgery, is only incidentally considered in the goodly volume under review. Its scope can be inferred when the subjects taken up are named. Part I. treats of wounds, of aseptic technic, of local and general anesthesia, and of the principles of plastic operations. Part II. takes up surgical infectious diseases; Part III., necrosis; Part IV., mechanical injuries of tissues and their results; Part V., surgical diseases; Part VI., tumors, and Part VII., cysts, other than cystic tumors. Dr. Lexer's work mirrors German surgical science at its latest and best. Dr. Bevan's additions are just what would be expected by those of us who know him as a brilliant and most successful operator, and who know of him as a teacher winning fame for the great university with which he is connected. Dr. Lewis has made a translation of the German text into smooth and scholarly English; and, in view of this, he deserves our hearty congratulations. As an evidence of the advanced character of the work, mention may be made of the section on blastomycosis, written by Dr. Oliver Ormsby. Nothing to equal it can be found in any other general treatise known to this reviewer. The illustrations throughout the book are new to English readers, and are, in the main, excellent. The publisher's part is up to the Appleton standard, and, saying this, it is not necessary to say anything further on the subject. Reading certain sections of the work for

the purpose of this review has been a genuine pleasure. Its more careful study is counted upon by the writer as affording an opportunity for keeping in touch with the most advanced German and American practice. The viewpoint is new and the prospect most attractive. N. A. P.

Text-Book of Gynecological Diagnosis. By Dr. Georg Winter, O.O., Professor and Director of The Kgl. Universitats-Frauenklinik in Konigsberg, Prussia, with the collaboration of Dr. Carl Ruge, of Berlin. Edited by John G. Clark, M.D, Professor of Gynecology, University of Pennsylvania. After the third revised German edition. Illustrated in four full page plates and 346 text illustrations in black and colors. Philadelphia, London and Montreal: J. B. Lippincott Company.

But little attention has been given of recent years, as far as medical literature is concerned, to the subject of gynecological diagnosis. It is for this reason that we welcome this valuable text-book by Drs. Georg Winter and Carl Ruge. The editor, Dr. John G. Clark, has had no easy task in his work of putting before the American medical profession such a mass of practical material. The text-book consists of nearly 650 pages, which are illustrated by four full-page plates, and nearly 350 text illustrations in black and colors. On the second title page we find the following sentence: "To my esteemed master, Robert Olshausen, ths work is dedicated in unalterable gratitude," showing in what high esteem Olshausen must have been held by the authors.

A large number of books devoted to American gynecology have appeared of recent years; but we cannot say that we have come across one quite so practical and generally useful as The Text-Book of Gynecological Diagnosis. It will be found by the average practitioner to be of great aid to him in his daily work, and is well worthy of the most careful perusal by all those who are fortunate enough to possess a copy. It is but twelve years since the first edition of this book was published, since which time it has been twice thoroughly revised. The book contains three parts, the first devoted to General Diagnosis, the second to Special Diagnosis and the third to Analytical Diagnosis. Part one covers such subjects as external and internal examination of the patient, combined examination, the proper method of using the specula, microscopic diagnosis, cystoscopy, bacteriologic diagnosis and radiography. Part two consists of over five hundred pages and forms, of course, the principal part of the book. It would be difficult to enumerate the different headings found in this section, but suffice it to say that very few subjects coming under this heading have been left untouched.

There is no doubt that American Gynecology owes a great

deal to the research work that has been done during the past decade or more by German specialists, who have proved themselves more than worthy of notice in this particular field. The German work in embryology alone has been hardly equalled by that accomplished in any other country, so that it is little wonder that a work such as the one under review contains such a wealth of original material.

We heartily recommend Dr. Clark's translation to any who are desirous of purchasing a book that must of necessity prove valuable for many years to come. W. A. Y.

Aids to Obstetrics. By Samuel Nall, B.A., M.B., Cantab., M.R.C.P., Lond. Revised by C. J. Nepean Longridge, M.D. Viet., F.R.C.S. Eng., M.R.C.P. Lond., pathologist and registrar, late resident medical officer at Queen Charlotte's Lying-in Hospital, registrar to the Grosvenor Hospital, examiner to the Central Midwives Board, lecturer on midwifery for the London County Council. Twenty-fifth thousand. Seventh edition. London: Bailliere, Tindall & Cox, 8 Henrietta Street, Covent Garden, 1909. Canadian agents: J. E. Carveth & Co., Yonge Street, Toronto.

This little work, although without illustrations, is a very complete handbook. The subject is taken up in such a way as to be of special value to students or others wishing to review. It is up to date and well written, the chapters on the obstetrical operations being specially good. We only regret that it is non-illustrated and somewhat brief, or it might take its place as a first-class manual of obstetrics. W. J. W.

Orthopedic Surgery for Practitioners. By Henry Ling Taylor, M.D. Published by D. Appleton & Company.

"Modern Orthopedic Surgery has no prejudices for or against mechanical, gymnastic, or operative procedures as such, but uses each at the proper time and in its proper place. It has completely emancipated itself from its former rather narrow limits, and has made, and is still making, vast progress in the simplification and proper choice of methods; it is also making contributions of value to medical and surgical practice. It is this progressive, vital, modern orthopedic surgery that it has been our aim to present."

The spirit of this quotation has been well kept in mind by the author throughout this comprehensive work—comprehensive, and yet all too brief.

The author's arrangement adds much to the convenience and clearness of the book and favors economy of time and space. The work is divided into General, Special and Technical parts. In the first are discussed the underlying principles and the more impor-

tant crippling affections. The second is topographical, giving attention in the discussion of each part to diagnosis, prevention, prognosis and treatment. The third part deals with the principles of mechanical treatment.

The author's style is terse and lucid; one is seldom left in doubt as to his meaning. His matter bears ample testimony to his own experience of twenty-five years in the study and work of orthopedic surgery. Many of his readers will be surprised at the extent of the field claimed and covered. The orthopedic surgeon's training gives him special qualifications for dealing with all mechanical problems relating to locomotion, and consequently with fractures. He is brought constantly into contact with diseases of the nervous system, because of their disabling results, remedial chiefly by surgical means. The general practitioner and often the general surgeon, who may not have been able to keep closely in touch with the great advance made in orthopedics, will read this book with surprise and delight. In not a few of its teachings he will find it necessary either to modify his views or to dispute the author's conclusions and practice.

"There is far too much fear of stiffened joints. In dangle and paralyzed joints ankylosis in proper position is a positive benefit and is often intentionally produced. . . . Normal joints may be fixed for an indefinite time without fear of ankylosis; it is only inflamed joints that become permanently stiff. . . . Anything that increases the joint irritation causes an increase of destructive action and of adhesive inflammation. Injudicious, passive or forced movements in the active stage of disease often do this. . . . It is a safe rule not to persist in manipulations that cause severe, general or local reaction, or are followed by increased stiffness. The fear of ankylosis with some amounts to a mania, and much harm and suffering have been caused by ill-advised and useless manipulations."

The very common practice of employing passive motion is responsible for many disabling results following fractures.

The teaching throughout the book has gathered up the latest and best that has found expression in surgical literature dealing with the surgery of the skeleton, that which is concerned with attitude and locomotion.

It is a disappointment to find no reference to important surgical work which has been done in the suturing, grafting and transposing of nerves, with a view to energizing paralyzed muscles. This work is closely associated with the objects sought by the orthopedic surgeon, and is a field full of promise.

While conciseness is commendable, yet one may wish that the author had written more fully on many points. In summing up one may in justice say that Dr. Taylor has given the profession

an excellent setting forth of the modern teaching and practice of orthopedic surgery. B. E. M.

Obstetric and Gynecologic Nursing. By Edward P. Davis, A.M., M.D., Professor of Obstetrics in the Jefferson Medical College, Philadelphia. 12mo. volume of 436 pages, fully illustrated. Third revised edition. Philadelphia and London: W. B. Saunders Company. 1908. Agents for Canada: J. A. Carveth & Co., Limited, Toronto. Polished buckram, $1.75 net.

It seems to us but a very short time since we received the second edition of Dr. E. P. Davis' work, Obstetric and Gynecologic Nursing. The mere fact of the third edition following the second so rapidly goes to show that the book is a valuable one and that it has met with a favorable reception. The author has thoroughly revised his work, and considerable new material appears in the third edition. The book is written for the trained nurse, and will be found full of most valuable information, which can be put to practical use during her career. It is divided into two parts, the first devoted to Obstetric Nursing and the second to Gynecologic Nursing. After perusing this work, we feel that it is worthy of recommendation, and we portend for it a better reception even than that given to its predecessor.

The Black Bag. By Louis Joseph Vance. With illustrations by Thomas Fogarty. Toronto: McLeod & Allen, publishers.

The story of a young Californian, who suddenly became penniless through failure of his business firm in San Francisco and passed through enough adventures in the following few weeks, everything occurring at opportune moments, to please any reader who is fond of such characters as Raffles.

American Practice of Surgery. A Complete System by Representative Surgeons of the United States and Canada. Edited by Joseph Decatur Bryant, M.D., and Albert Henry Buck, M.D. To be published in eight royal octavo volumes. Volume V., 973 pages, illustrated by 452 line and half-tone engravings in the text and by eight full-page plates by chromolithography and other processes. (Subscription.) New York: William Wood & Co.

The first article, on Surgery of the Head, is by Dr. Edward Archibald, of Montreal, Canada. Scalp, cranial bones and contents of skull—vessels, membranes and brain structures—receive very full consideration. Some idea of the thoroughness with which all these topics are treated may be inferred from the fact

that this article alone occupies nearly 400 pages (out of a total of 973). Although surgery of the brain is a relatively new field, it has been most energetically explored and cultivated, and it can already boast some remarkable triumphs.

"Surgery of the Face" is the title of Prof. C. B. G. de Nancrede's article. It takes up, one after another, the different surgical diseases which may involve this part of the body, and gives sufficiently full and thoroughly practical information with regard to each one of them. The different operations which may be employed for the relief or cure of these diseases are described in detail; not all of them, however, as hare-lip and the various plastic operations receive separate and very full consideration in other parts of this work

Dr. George C. Harlan's "Surgery of the Eye" is a very practical treatise on this subject, and gives the reader an excellent insight into the state of opthalmic surgery at the present time.

As one might expect from the fact that Dr. Bryant's associate was for more than a quarter of a century in active otological practice, the surgery of the ear receives specially thorough treatment in the American Practice of Surgery. The entire field is subdivided into three parts, and each one of them is entrusted to an expert.

Dr. Robert Lewis, jr., discusses the different mastoid operations in great detail, and with the ease and assurance of one who knows from long experience what sort of practical information he may best furnish for the guidance of those who are likely to read his article. Equally thorough and satisfactory are the articles of Dr. John D. Richards, of New York, and Dr. Henry O. Reik, of Baltimore. The former writes on infective sinus thrombosis of otitic origin and on the surgery of the labyrinth—the latter an entirely new field; and Dr. Reik furnishes a well-written and thoroughly practical treatise on brain abscesses of otitic origin. All three of the articles are copiously illustrated, the last two being furnished with exclusively original pictures.

The remaining articles in the volume—on surgery of the cranial nerves, by Dr. Charles H. Frazier, of Philadelphia; on surgery of the pharynx, etc., by Dr. Charles H. Knight, of New York; on surgery of the larynx and trachea, by Dr. James E. Newcombe, of New York; on laryngectomy, by Dr. Frank Hartley, also of New York; and on hare-lip and cleft-palate, by Dr. James S. Stone of Boston—are all of conspicuous merit. In every instance the writer has kept clearly before him the duty of describing operative procedures in such a detailed manner that his readers, if reasonably well trained in surgical technique, should have no special difficulty in repeating the different steps recommended.

We cannot refrain from expressing the hope that the articles which are yet to appear in the remaining three volumes may maintain the high standard of excellence which characterizes the articles in Volume V.

Proceedings of the Royal Society of Medicine. Vol. II., No. 3. January, 1909. London, New York, Calcutta, Bombay: Longmans, Green & Co., 39 Paternoster Row. All rights reserved. Price, 7s. 6d. net.

The January issue of the Proceedings of the Royal Society of Medicine contains a number of very important articles by leaders in the English profession. The most important article, perhaps, contained in this volume is, "Discussions of the Influence of Heredity on Disease, with special reference to Tuberculosis, Cancer, and Diseases of the Nervous System." The introductory address is by Sir William Church, K.C.D., the following well-known members of the profession also taking part: Sir William Gowers, Professor Bateson, Dr. G. H. Savage, Dr. F. W. Mott, Dr. Mercier, Dr. Arthur Latham, Prof. Karl Pearson, Dr. J. E. Squire, Dr. Baskford, Mr. Butlin, Sir John McFadyean, Dr. A. M. Gossage, Dr. Shrubsal, Mr. J. H. Evans, Dr. Heron, Mr. J. P. Mudge, Dr. Bulloch, Mr. N. Bishop Harman, and Dr. C. Herbert Bond. The usual number of sections on Anesthetics, Diseases of Children, Dermatology, Electro-therapeutics, Laryngology, Neurology, Obstetrical, Surgical and Oto-laryngological diseases appear, each one containing most important literature upon its particular subject.

International Clinics. A quarterly of illustrated clinical lectures and especially prepared original articles; edited by W. T. Longcope, M.D., Philadelphia. J. B. Lippincott Company, publishers. Volume four of the eighteenth series is out. Dr. Jos. Pratt, of Boston, calls attention to the advance of physical therapeutics, a timely paper, seeing so much has been said of late of psychotherapeutics. Lichty, of Pittsburg, reports 140 cases of gastric ulcer. He reviews the management and treatment of von Leube and of Ziemssen, and also the surgical treatment. For the anemia he recommends iron subcutaneously. The cause, he says, is yet to be discovered. Dr. Palmer, of Cincinnati, writes on psychotherapeutics. The preceding number had an article on "The Trail of the Subconscious," highly excellent. This one gives merely a cursory and superficial view of the subject. The article quotes Strümpfell as saying that one-half the cases of impaired health are of mental origin. As a remedy for some of these functional nervous troubles, travel is extolled; it is "the best instructor for the harmonious development of our physical, mental

and spiritual natures." Wainwright, of New York, contributes a paper on Gout. One cause of gout, he holds, is lead poisoning; another is drink. Its pathology has not been thoroughly established. The author describes the disease clinically, both the acute and the chronic types. He calls attention to the value of colocynth and states that it is the chief ingredient in the secret remedy known as Laville's tincture. Splanchnoptosis, by Thos. Brown, of Baltimore; Splenic Anemia, by Weber, of London; Gangrenous Appendicitis, with spontaneous cure, by A. L. Benedict, and a number of other interesting contributions appear in the volume.

J. N. E. B.

Proceedings of the Royal Society of Medicine. Vol. II., No. 2. December, 1908. Longmans, Greene & Co., 39 Paternoster Row, London, New York, Calcutta, Bombay. Price, 7s. 6d. net.

The December, 1908, issue of this valuable work contains a number of articles that are well worthy of perusal. The same sections as have appeared in the preceding volumes appear in this particular number, and we notice amongst the contributors such names as Dr. Edmund Cautley, Dr. Geo. Carpenter, Dr. James Collier, Dr. F. Parkes Weber, Dr. Albert Carless, Dr. Frederick E. Fentor, Dr. H. Radcliffe Crocker, Sir Malcolm Morris, Sir Felix Semon, Dr. Herbert Tilley, Dr. Chas. MacAlister, Mr. J. Bland-Sutton, and a number of others of equal renown.

We have on a previous occasion taken the opportunity of referring to "The Proceedings of the Royal College of Medicine" as being one of the most valuable contributions to medical literature, and we have no reason to change our opinion. W. A. Y.

Diseases of the Genito-Urinary Organs and the Kidney. By Robert H. Greene, M.D., Professor of Genito-Urinary Surgery at the Fordham University, New York; and Harlow Brooks, M.D., Assistant Professor of Clinical Medicine, University and Bellevue Hospital Medical School. Octavo of 605 pages, profusely illustrated. Philadelphia and London: W. B. Saunders Company. 1908. Agents for Canada: J. A. Carveth Co., Limited, Toronto. Cloth, $5.00 net; half morocco, $6.50 net.

The second edition of this book appears very soon after the preceding volume, and goes to show that the work of its authors has been acceptable to their readers.

After looking over the volume, consisting as it does of nearly six hundred pages, we find that considerable new material has been added and quite a number of subjects considered that did not appear in the first edition at all. A number of new operations

are presented to its readers, as also new methods which have appeared in recent medical literature. But few books have been written on Genito-Urinary Diseases whose authors have considered what is required by the general practitioner. The great trouble with the majority of medical authors is that they consider too much the interests of the specialist and more or less ignore what should benefit the average general practitioner. Drs. Greene and Brooks have in this volume incorporated a good deal of practical material, most of which will be found useful to the general practitioner. It is not to be expected that in a work of this size there will be found a full and complete description of this vast and rapidly increasing subject; but the authors have devoted the most of their space to conditions found very frequently in practice. Another advantage of this work is that it is the conjoint product of a surgeon and a physician, so that both sides of the subject have been considered.

Arteriosclerosis; Etiology, Pathology, Diagnosis, Prognosis, Prophylaxis, and Treatment. By Louis M. Warfield, A.B., M.D., instructor in medicine, Washington University Medical Department, physician to the Protestant Hospital, adjunct attending physician to the Martha Parsons' Hospital for Children, St. Louis, Mo., formerly medical health officer at the Johns Hopkins Hospital, Baltimore, Md., member St. Louis Medical Society and American Medical Association, etc. With an introduction by W. S. Thayer, M.D., professor of clinical medicine, Johns Hopkins University. With eight original illustrations. St. Louis, Mo.: C. V. Mosby Medical Book Company, 1908.

This is a comprehensive but concise little work on a subject of universal interest. One finds embodied in it practically all that is known of the condition described by that rather vague name, arteriosclerosis. The volume is well bound, nicely illustrated, and carefully written. A careful perusal of its pages will hold the interest and well repay the reader. W. J. W.

An Atlas of Clinical Surgery. By Bockenheimer. Has just been published in three volumes. New York: Rebman Co.

This work was undertaken by Bockenheimer from material at von Bergmann's clinic. Models of morbid conditions were executed with great skill by Kolbow, in the pathoplastic institute in Berlin, and used with much value in the teaching of clinical surgery. These models have been reproduced for the purposes of this atlas by the four color process, giving a more natural appearance than can be obtained in reproduction by water-colors. These beau-

tiful clinical pictures should be of great value to assist the practitioner in the diagnosis of the more important surgical diseases.

In the text the author gives diagnosis, prognosis, and treatment, according to the teaching of von Bergmann's School, and therefore is quite abreast of modern times.

Mr. Marshall, who has undertaken the translation of this valuable work, has performed his task in a very acceptable manner.

Altogether, this work is of a very high order of merit, and should be in the hands of every practitioner. The cost of the work, $24 for three volumes, will probably interfere with its being used largely by students, although it would be a most useful and practical work for them. H. A. B.

Green's Encyclopedia and Dictionary of Medicine and Surgery. Edited by J. W. Ballantyne, M.D., F.R.C.P.E. Vol. X. Thiersch-Zymotic. Edinburgh and London: William Green & Sons.

Volume X. of Green's Encyclopedia brings the entire work to a conclusion. This volume includes all subject headings from "Thiersch's Method" to "Zymotic." The volume forms a very fitting conclusion to the splendid work, and it will be found by its readers that the ten volumes of the present set include almost all of the articles which appeared originally in the thirteen volumes of Encyclopedia Medica, along with a good deal of new material.

When we first glanced over Volume I. of this work, we were a litle dubious that the editors could fully carry out their promises; but we have been agreeably disappointed. We have already taken occasion to say that Green's Encyclopedia and Dictionary of Medicine and Surgery is a medical dictionary on a very large scale and that it would be largely subscribed for by those desiring to have in their library what really combines a medical dictionary and a work dealing in abstract form with many thousand subjects in medicine and surgery.

Volume X. contains nearly eleven hundred subject headings, of which sixty-four are articles of more than one thousand words in length. Under these articles we find contributions dealing with Morbid Conditions of the Uterus, Displacements, Inflammation, Tumors, and Insanity Associated with Uterine Diseases. Another long article deals with the Pathological Change in the Urine, another with Tuberculosis, another with the Wrist-Joint, another with Whooping Cough, and still another with Yellow Fever.

It would be almost impossible to enumerate the medium sized and shorter articles to be found in this volume, as they are very numerous.

In the entire work by Dr. Ballantyne, we find not less than six hundred and nine lengthy articles, and ten thousand three hun-

dred and sixty-six subject headings, an average of nearly twelve hundred per volume.

We take the opportunity of again congratulating both the editor and the publishers upon the result of their labors.

Surgery of the Upper Abdomen. Volume I. Surgery of the Stomach and Duodenum. By JOHN B. DEAVER, M.D., L.L.D., Surgeon-in-chief to the German Hospital, Philadelphia, and A. P. C. ASHHURST, M.D., Surgeon to the Out-Patient's Department of the Episcopal Hospital, Philadelphia. Publishers: P. Blakeshire Son & Co., 1012 Walnut Street, Philadelphia, 1909.

This book, of 452 pages, well illustrated, coming from two surgeons of such excellent repute, is so well written and contains such a wealth of knowledge from the commencement to the end, that it should be found among the "Selected Books" of each practitioner's library. The chapters on the anatomy and embryology of the upper abdominal viscera are excellent, and form the basis of the symptomatology and treatment of the diseases of the stomach and duodenum. They are not at all exhaustive, but of sufficient length for the purpose. "The Physiology of Digestion" is especially good, in the description of the functions of the serous and mucous surfaces, in their defensive action of the human economy in disease. Gastric ulcer is treated at length, and with a great deal of logical thought. The chapter on Pyloric Obstruction is especially interesting, one cause of which, "Infantile Stenosis," being so very well written, that the attention is held to the maximum. Malignant diseases of the stomach, hour-glass stomach, ulcer of duodenum and stomach, with the very lucid descriptions of the various operative procedures are, in themselves, worth the price of the book and the energy expended in digesting and assimilating them. The volume is essentially up-to-date, and contains many points that are new from the experience of the world's best-known and greatest surgeons.

Volume II., on "Surgery of the Liver, Gall Bladder, Pancreas and Spleen," is in active preparation, and, judging from the one just issued, should be eagerly looked forward to by both physicians and surgeons. C. F. M.

PUBLISHERS' DEPARTMENT.

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Original Contributions.

NEUROPATHIC WARDS IN GENERAL HOSPITALS.*

BY CAMPBELL MEYERS, M.D., TORONTO.

Mr. President: As functional nervous diseases have of late occupied a prominent place in the advance of medicine, I thought a few remarks on the practical result of their treatment for the past two years in the special department of a general hospital, might be of interest to this Association.

I may first say that I advocated the formation of neuropathic wards in general hospitals primarily, in the belief that a practical means would thus be found for the prevention of the most serious disease which not only the physician but the State has to contend with, viz., insanity.

I would here state that by the word "insanity," as used in this paper, I would refer only to the *acute* insanities, the psychoneuroses of Kafft-Ebing; and by functional nervous disease, to those forms especially of so-called neurasthenia, in which psychical symptoms predominate, or, as it might be termed, acute psychasthenia. The chronic insanities, such as dementia precox, etc., are not included.

With the many other beneficial results, which arise from the treatment of those functional nervous diseases, in a special department of a general hospital, which do not tend immediately towards insanity in their onward course, I will not detain you.

I would like first to direct your attention to the question of the prophylaxis of insanity from a neurological point of view, viz., by beginning at the earliest stage of the development of nervous

*Read at the sixty-fourth annual meeting of the American Medico-Psychological Association, Cincinnati, May 12, 1908.

disease, and proceeding thence to the more advanced stage, when the boundary-line of insanity is reached.

The question of the prevention of insanity has been discussed chiefly by the alienist, who, in spite of every effort to promote this good work, has been greatly handicapped by the existing condition of affairs, since the patient only comes under his care when actually insane, and, in consequence, the patient's state previous to admission must remain more or less a surmise to him. The average general practitioner, under whose care these cases must inevitably first come, has heretofore received an instruction in insanity, and these functional nervous diseases, which has been wholly inadequate in proportion to their importance, and which, when added to the isolated treatment of the insane apart from general hospitals, has unfortunately led to the development of a chasm of considerable dimensions between alienation and general medicine. This chasm will, I trust, be bridged by the neurologist. The study of neurology heretofore has been largely confined to the organic nervous diseases, and the contributions to the elucidation of the problems of this class of disease in recent years by the neurologist has been most gratifying. The functional field, however, with its gates wide open, has admitted but comparatively few workers, and in consequence this fertile field has remained, for the most part, uncultivated.

A preliminary difficulty with which we are confronted in the consideration of these troubles, is their classification, since the nosology of both functional nervous diseases and insanity has been much changed in the past few years.

A discussion as to a line of demarcation between functional nervous disease and insanity is so broad a question as to be entirely beyond the scope of a short paper, and yet some more or less clear conception of what is intended to limit the former is essential. If we attempt to draw a line *pathologically,* it must, in the present state of our knowledge, end in confusion. While all admit that both these forms of disease are due to a lesion in the nervous system, and in many cases a purely functional lesion, yet, to describe an attack of mania as a functional nervous disease, while pathologically correct, would certainly lead to much misunderstanding. Hence, much as it is to be desired that these diseases might be classified on the basis of their pathological anatomy, and further, that the term "functional" as applied to nervous disease should become more restricted, such is at present impossible. We must, therefore, turn to-day to another basis of classification, which, while it presents many imperfections, is for the present the more practical one, viz., the *clinical* basis.

On this basis, the boundary-line forms the line of demarcation between functional nervous disease and insanity. While it is

sincerely hoped that this boundary-line will in the future be eliminated, except for medico-legal purposes, and, as I advocated in an earlier paper, that it will no longer form a barrier in the treatment of these diseases as at present, still, for another generation at least, it must exist and will meanwhile serve a useful end. If we regard the boundary-line of insanity as indicating a more or less advanced stage of functional nervous disease, we will, I think, have a practical basis on which to proceed.

I would now desire to direct your attention to a modest beginning which has been made in the Toronto General Hospital, where neuropathic wards were established now nearly two years ago. A building which was semi-detached from the hospital, and had been formerly the residence of the medical superintendent, was kindly offered by the trustees of the hospital, and the Ontario government made a grant sufficient to cover the alterations necessary. By this means, accommodation for twelve beds was provided—six for male and six for female patients. Two floors were thus occupied, and the beds so arranged that four on each floor were in a large ward, while the remaining four (two on each floor) were in separate wards, and were thus utilized for isolation. At first wire screens were placed on the outside of the windows, but later these were found unnecessary and an objection in regard to fire escapes, and they were discarded, the windows being fastened by a simple lock in doubtful cases. On each floor a room was fitted up with hydro-therapeutic apparatus, and these, with a diet kitchen on each floor, consumed all the available space in the main part of the building. I may add that the upper story was used as a dormitory for the nurses, and that in the basement a strong room was made for the *temporary* detention of a violent or dangerous patient, until he could be transferred to an asylum, which was done as speedily as possible. On the exterior of the building, two large open balconies were made on the south and east sides, thus allowing provision for plenty of fresh air and sunshine to the patients, who utilize them both in winter and summer with excellent results. While the general conformation of the building and its limited accommodation presented several defects which could not be overcome, still the broad-mindedness of the trustees in offering the building and in establishing a separate department in the hospital more than compensated for these defects, and I very willingly assumed charge of it at their request.

While the object of these wards was the *treatment* of acute nervous disease, it was soon found that a certain proportion of cases admitted did not belong to this category, and consequently they could only be admitted for observation. After being under observation for a sufficient length of time to determine the diagnosis, they were, if found insane, at once transferred to an asylum

or taken away by friends. These cases were not visibly insane when admitted, but had been referred to these wards simply as "nervous." They comprised such cases as dementia precox, often in an early stage, and a decision as to their diagnosis, with advice as to the steps to be taken in their treatment, probably averted a crime in at least two of the cases admitted at this early stage. Had these wards for the "nervous" not existed, it is altogether probable that a study of the symptoms would have been delayed until the commission of a crime betrayed insanity. The report of these wards for the past two years shows that 20 per cent. of the cases were, after observation, adjudged to be suffering from some form of insanity on admission, and thus not suitable for treatment.

As mentioned above, I will not detain you with a discussion in regard to the other functional nervous diseases admitted to these wards for treatment. such as hysteria, epilepsy, functional paralyses, etc., which did not exhibit any immediate tendency to the development of insanity. On turning, however, to those cases for which these wards were especially established, we find that 67 cases have been admitted to date suffering from acute psychasthenia. There is not included in this number those cases of neurasthenia in which *somatic* symptoms predominate, in which their disease might be termed "somatasthenia." I would, however, here mention the immense field which is open for study in the functional nervous disturbances of the thoracic and abdominal viscera, a field of study in which not medicine alone, but surgery as well, might claim its quota of the benefits.

I will not here enumerate the psychical symptoms of neurasthenia with which you are all so familiar, but I would like particularly to lay stress upon one fact; viz., that the progressive intensification of these same symptoms leads the patient to a more advanced stage of this same affection, which we then term insanity.

May I now mention a synopsis of the history of a patient who was under treatment last year, and whose symptoms fairly well represent the type of case admitted as acute psychasthenia?

She applied for admission about May 1, but as there was no vacancy she was obliged to wait. As she was very urgently in need of treatment, I feared she might become insane before a vacancy occurred. She came several times to the hospital while awaiting admission, and on each visit her symptoms were more pronounced, and my anxiety about her mental condition greater. When the vacancy finally occurred, on May 18, she was very near the boundary-line of insanity. The history is as follows:

M. M., female, age 46, admitted May 18, 1907. Discharged August 24, 1907.

Family History.—Father living and well, 87 years of age;

not nervous; a farmer, and has always enjoyed the best of health. Mother dead; paralysis; 68 years. Was of a very nervous disposition, as were also five sisters; otherwise negative.

Personal History.—Occupation, housekeeping; no children; no miscarriages. Began to menstruate at about fourteen; always regular, and never suffered very much pain at her periods. As a child, says she was not of a nervous disposition. Never had chorea or other nervous trouble. Says she was quite bright at school, but never applied herself closely to her studies. Always took a great deal of outdoor exercise. Is a farmer's wife. Married at 26. Says she has never worked hard; always has had a comparatively easy time.

Previous Illness.—Had influenza a number of times; otherwise quite healthy till present trouble developed.

Present Illness.—Patient says it began about one year ago, and she attributes it wholly to the fact that her husband was taken seriously ill with paralysis, and patient worried very much, thinking that he would not get better, as he was confined to his bed for about six months. Patient says she became exhausted by worrying and by the work in attending to her husband. The first symptom to make its appearance was weariness. Patient says she felt tired each morning on arising, and even though she rested during the day she still felt tired. Then insomnia developed. She began to worry about any small matter, and felt that she was surrounded by a multitude of troubles which she was unable to overcome. She frequently became depressed, and finally gave up all hopes of getting better. Patient became irritable, petulant and emotional—any small matter that called for mental exertion caused her temper to give way. She began to feel that she was not capable of performing the duties which she was called upon to perform. She says she misconstrued remarks made by others, and felt that she was being made fun of when she heard anyone laughing or talking. Complains of feeling of constriction about the head. Complains that she is indifferent and lacks interest in anything she is doing; cannot concentrate her thoughts, and she is never surprised at anything, no matter how unexpected it may be. She takes everything as a matter of course—has become listless. Feels restless and has a desire to be on the move. Cannot content herself with being quiet, and feels the want of some outlet for her feelings. She has often felt that she is a burden to herself and her people, and that she would sooner be dead.

Physical Examination.—Negative.

The ward notes, after recording various ups and downs, read as follows on July 27:

Has slept very well during the last week, with exception of the

last two nights. She is brighter and looks better than she did a week ago. Has gained 3¾ pounds this week.

August 2. Patient doing well. Gained 2¼ pounds this week.

August 8. Patient eats and sleeps well, and is very cheerful.

August 14. Patient cheerful and sleeping well. Gain in weight equals 2½ pounds last week.

August 24. Patient sleeps well, eats well and is bright. Wants to go home to her husband. Discharged. "Recovered." Duration of treatment, 3 months and 6 days.

This patient was doing her household work and nursing her husband, who was still partially paralyzed, when last heard from, two months after leaving hospital.

In regard to this history, I may say that while it is at all times difficult to express on paper the degree of intensity of any feelings, I think sufficient has been written to show that a progressive intensification of the symptoms occurred from the beginning, when there was simply undue weariness with loss of sleep and increased emotivity, up to the date of her admission, when her listlessness and depression became so marked that she gave up all hope of getting better, and felt she would sooner be dead. She was then evidently on the borderland, and any further intensification of her symptoms would have resulted either in self-destruction or an attack of insanity.

Of the results of treatment in the 67 cases above mentioned, 22 were discharged recovered; 36 improved, and 9 were unimproved by treatment and became insane. Hence, in 85 per cent of these cases admitted, the immediate danger of insanity was averted, a result which can, without difficulty, be reduplicated under similar circumstances in any general hospital when the cases come under treatment sufficiently early. No accident has occurred since the inception of these wards; there is no red tape in regard to admission; no difficulty in regard to detention, and, finally, no stigma from being treated with the insane, which the laity so much dread. Again, and perhaps most important of all, clinical instruction has been given in these wards during the past winter. The house staff, the students and the nurses have all referred in warm terms to the value of their experience from the observation and study of these cases.

There now remains one other point to which I would like to direct your attention, and this is in regard to a suggestion which has been made to treat these cases in a psychiatric hospital. The attempt to do this would, I firmly believe, be a grievous mistake. Every alienist is well aware of the difficulty in getting the acute cases of insanity under treatment at an early date, owing to the prejudice of friends to have a near relative treated among the

insane. How much greater then would be the prejudice when the patient was as yet suffering from nervous disease only! Practical experience has demonstrated in the wards of the Toronto General Hospital that the presence for a short time only of a patient visibly insane has so disturbed the other patients in the same ward that the ill effects were felt for days, even after the removal of the patient from the building. Again, the influence of suggestion, induced by the presence of the insane in the same building, is most harmful, in view of the importance of psychic treatment of these cases. many of whom fear they will themselves become insane, and this fear would thus be kept constantly before them. If further practical results are desired, I may mention the last report of that most excellent department of the Albany Hospital, Pavilion F. The fifth report of this pavilion shows that only 2 per cent. of the total cases admitted suffered from neurasthenia. Any attempt, therefore, to treat functional nervous disease in the same department of a hospital as the insane, will, I am assured, result practically in failure, and the nervous patients will return to the general medical wards of the hospital as of yore.

In conclusion, I may state that as a result of more than fifteen years of experience, devoted exclusively to the study (under exceptionally favorable conditions) of diseases of the nervous system, and of which these functional cases formed a large quota, I am convinced that for the true prophylaxis of acute insanity we must look to the general hospital, and that this result will be best accomplished here by the formation of neuropathic wards, especially equipped for the purpose.

CLINICAL LECTURE—LOBAR PNEUMONIA.

BY JOHN V. SHOEMAKER, M.D., LL.D.
Professor of Materia Medica, Therapeutics, Clinical Medicine, and Diseases of the Skin in the Medico-Chirurgical College and Hospital, Philadelphia.

Gentlemen,—The subject for consideration this morning is a case of typical pneumonia. The patient is a young man aged 27 years, occupation, engineer.

His previous personal history and the family history are negative and possess no clinical value as regards his present trouble.

Present illness: Dates back to the 8th of this month, when he was exposed to a cold, damp night air watching a parade (Founders' Week). On returning to his home he felt chilly and before retiring he took six grains of quinine sulphate and a hot lemonade. The next morning he went to work, where he is exposed to the weather and occasionally high temperature in front of furnaces. On the 9th, 10th, and 11th he felt fairly well, except that he had a cold in the head involving his nose and throat, for which condition he took from two to six grains of quinine and a hot lemonade every evening to break up the cold. On the 12th he felt worse, had a slight chill and headache. That evening before retiring he took more quinine and hot lemonade. On the 13th and 14th he felt better, but kept up his treatment of quinine and hot lemonade. On the 15th he had another chill, followed by headache and prostration. That evening he took ten grains of quinine and more hot lemonade. The following morning, the 16th, he felt better and, as usual, went to work. However, in the early part of the afternoon, he suddenly took a severe chill, lasting over an hour. This was followed by headache, malaise, prostration, and high fever. He left his work and went home at about two o'clock. That afternoon the following physical signs were in evidence:

He was in bed, felt chilly, the face was flushed, wearing an anxious expression; skin being dry and hot. The pulse was 104, full and bounding; temperature 102 2-5 deg. F., and respiration 28 per minute, and at the same time had a short bronchial cough with no expectoration.

The patient complained of dyspnea, with a sense of oppression in front of the chest, and a sense of pain in the loins. Examination of the lungs revealed on percussion impaired resonance posteriorly over the right lower lobe, and crepitant rales could be discerned at the end of inspiration only by the aid of the stethoscope. The following morning, however, on palpation over the right lower lobe there was increased vocal fremitus; percussion gave a distinct, dull, high-pitched note of short duration, and

auscultation revealed typical tubal breathing. Dyspnea was more marked; the cough intensified with expectorations of blood-streaked mucus, and over the normal part of the lung there was exaggerated vesicular breathing.

His temperature was 104 1-5 deg. F., respiration 32, and the pulse 118 per minute, full and bounding in character. Auscultation of the heart revealed marked accentuation of the second pulmonic sound, which is an index of the marked resistance offered to the circulation through the consolidated area of the right lung. No other or organic lesions could be elicited.

Three days after the onset, the expectoration was of the typical prune-juice color, and very tenacious.

Habits: He smokes cigarettes excessively, and also uses alcoholic beverages to the extent of intoxication.

Urinalysis—Color, amber. Sediment, negative. Specific gravity, 1025.

Sputum Examination—Leucocytes, a few. Epithelial, a few. Tubercle bacilli, negative.

Urinalysis—Odor, aromatic. Reaction, acid. Albumin, small ring. Glucose, negative. Diazo Reaction, positive. Casts, numerous, broad, granular, fatty casts and a few hyaline casts. Cylindroids, a few. Leucocytes, a few; Urates, present. Chlorides, absent.

Sputum Examination—Diplococcus Pneumonia, present. Parasites, streptococci.

Diagnosis—The diagnosis of lobar pneumonia was based first upon the sudden chill with rigor, pain across the chest, the crepitant rale at the end of inspiration, and the high fever with a full, bounding pulse. On the second visit the suspicion was corroborated by the tubal breathing, consolidation, high, continuous fever, accentuation of the second pulmonic sound, cough, expectoration of tenacious mucus tinged with blood, increased respiration and pain on taking a deep inspiration. On the third day the diagnosis was absolutely confirmed by the presence of the Diplococcus Pneumonia.

Differential Diagnosis—Lobar pneumonia may sometimes be mistaken for acute pleurisy with effusion, acute pneumonic phthisis, broncho-pneumonia and acute pleurisy. For your convenience I wish to briefly give you a tabulated differential diagnosis of the diseases mentioned:

Differential Diagnosis.

Lobar Pneumonia—

(1) Onset acute, rigor lasting 1 hour. (2) Expectoration viscid and rust-colored. Cough is more marked. (3) Herpes common. (4) Sputum contains pneumococcus. (5) Fever of

continued type, terminating by crisis. (6) No distention of thorax. (7) Yields a few drops of thick blood on aspiration. (8) Upon percussion dulness is less complete and there is less resistance. (9) Face flushed and mahogany color. (10) No displacement of neighboring organs. (11) Increased vocal fremitus and vocal resonance.

Pleurisy with Effusion—

(1) Onset marked by chilliness, persisting for a few days. (2) No expectoration; cough irritating. (3) Herpes are absent. (4) Sputum does not contain pneumococcus. (5) Fever of continuous type, declining by lysis. (6) Thorax is distended. (7) Yields serum on aspiration. (8) Upon percussion there is flatness with great resistance to the pleximeter finger. (9) Face pale and anxious. (10) Displacement of neighboring organs. (11) Diminished vocal fremitus and vocal resonance.

Lobar Pneumonia—

(1) Begins with a chill and pain in side. (2) Fever of continued type terminating by crisis. (3) Sudden with severe rigor and rapid rise of temperature. (4) Sputum contains pneumococci. (5) Herpes common. (6) Sputum is viscid, sticky and rusty-colored. (7) No severe sweating until crisis. (8) Emaciation not much. (9) Signs of consolidation followed by resolution. (10) Prognosis guarded. (11) Usually limited to one lobe or lower part of lung.

Acute Pneumonic Phthisis—

(1) Begins as a bronchitis and with a chilly sensation. (2) Fever of remittent type often becoming intermittent, without crisis. (3) Generally more gradual; rarely severe rigor; often follows severe cold. (4) Sputum contains tubercle bacilli. (5) Herpes less so. (6) Sputum is more purulent and copious and may also be blood-tinged. (7) Profuse night sweats. (8) Emaciation well marked. (9) Signs of consolidation followed by cavity formation, with large, gurgling rales at apex. (10) Prognosis fatal. (11) Usually extends from the base to apex and affects both lungs.

Lobar Pneumonia—

(1) Begins with a well-marked chill. (2) Presence of diplococcus pneumonia. (3) Onset abrupt. (4) Percussion yields marked dulness and it is unilateral. (5) Affects one lung. (6) Sputum rusty or prune-juice. (7) Terminates by crisis. (8) Dyspnea less marked.

Broncho-Pneumonia—

(1) Begins as a severe bronchitis. (2) Presence of pathogenic organisms (Streptococci). (3) Onset gradual. (4) Dulness less

marked and bilateral. (5) Affects both lungs. (6) Sputum glairy, tenacious and in adults may be blood-tinged. (7) Does not terminate by crisis. (8) Dyspnea marked.

Lobar Pneumonia—

(1) Onset sudden with chill. (2) Countenance congested and flushed. (3) Expectoration rusty. (4) Percussion yields marked dulness. (5) Bronchial voice and breathing. (6) Temperature higher (104-106 deg. F.). (7) At the end of inspiration a crepitant rale is heard.

Acute Pleurisy—

(1) Onset marked by pain in side. (2) Countenance pale and anxious. (3) Expectoration frothy and mucous. (4) Percussion yields slight dulness. (5) Feeble voice and breathing. (6) Temperature lower (102-104 deg. F.). (7) Inspiration and expiration yield superficial friction rales.

Pathology.

The lesions most frequently involve the lower lobe of the right lung and usually the whole of one lobe. The apices alone are least frequently involved.

There are three distinct stages exhibited by the lung in croupous or lobar pneumonia: (1) Congestion or Engorgement. (2) Red Hepatization. (3) Gray Hepatization.

The stage of congestion or engorgement is characterized by a dark area, red in color, and heavier than normal lung. A bloody liquid exudes when the lung is cut.

Microscopically the air-vesicles contain red blood cells and occasional leukocytes. The capillaries are greatly distended and turgid.

In the stage of red hepatization the diseased part of the lung becomes solidified, hence liver-like in consistency. The lung becomes harder and very much heavier than the normal. It is reddish-brown in color and the surface presents a granular appearance, due to minute plugs of fibrin, which fill the air-vesicles. The pleura is generally all covered with a fibrinous exudation.

Under the microscope the alveoli are distended with a network of fibrin, the meshes of which are filled with red blood corpuscles, pus cells and degenerated alveolar epithelium. The vesicular walls are found to be infiltrated with lymphoid cells.

The lung in the stage of gray hepatization is more friable than that in the preceding stages, and presents a grayish-white coloration. The granulations are less distinct and there is a fatty and granular degeneration of the cells of the exudate.

Histologically the air-cells are filled with leukocytes, the fibrin and other factors having disappeared, and the blood-vessels are

now the least prominent. The cellular elements of the exudate begin to degenerate and to soften and liquefy. This is known as the stage of resolution. The products of the vesicles are then partly expectorated, but most of it is absorbed. Then the lung is eventually restored to its previous condition.

However, if recovery does not take place, it is due to the purulent material which fills the lung tissue and impairs the nutrition of the lungs and finally terminates in an abscess.

There are also changes which take place in the viscera. The right chambers of the heart are distended with a firm and tough clot, caused by the clotting of the blood, due to the increase of its fibrin elements. The heart muscle becomes flabby and endocarditis and pericarditis may take place. The spleen is often enlarged and softened and the liver becomes hyperemic. The renal cells of the kidneys suffer parenchymatous degeneration.

Etiology.

The commonly regarded cause of lobar pneumonia is the micrococcus lanceolatus of Fränkel. This organism occurs in pairs and is pointed at one end, hence the term lanceolatus. This coccus has been found by Netter in the buccal secretion of twenty per cent. of the patients suffering with lobar pneumonia. The organism is sometimes found in healthy individuals and is present in the nose, eustachian tubes, larynx and saliva. It thrives best on agar-agar and bouillon, but not on potato between the temperatures of 24 deg. C. and 42 deg. C. The micrococcus lanceolatus has been found in eighty per cent. of the cases of lobar pneumonia. It has also been found in the pus of cerebro-spinal meningitis, endocardial vegetations, pericarditis, pleuritis, blood spleen and other affections.

The micrococcus gains entrance to the body through the respiratory passages and in this manner produces the disturbances and finally the disease. However, it is not always responsible for the complications and modifications which arise in ordinary lobar pneumonia. This is due to other specific organisms (streptococci and staphylococci, etc.), which may accompany the coccus and so be responsible for the secondary infection. It has been observed that the epidemic form of pneumonia has been spread by contagion, hence the disease is considered as an infectious disease, due to the action of a specific organism. Pneumonia is most common at all periods of life and the males are more commonly attacked than the females. Many outbreaks of this disease are attributed to dampness, traumatism, unhygienic surroundings and defects in the local sanitary conditions. A cold is often followed by pneumonia. This is explained as due to the fact that the mucous membrane of the respiratory passages is disturbed and as a conse-

quence its vitality is lowered, thus preparing the system for infection with the pneumococcus. Other predisposing causes are those habits which tend to debilitate and depress the nervous system, namely, alcoholism, Bright's disease, diabetes, carcinoma, etc.

Treatment.

In the treatment of a case of lobar pneumonia, the hygienic treatment is quite as essential as medication. The patient should occupy a well-ventilated room not exceeding 68 deg. F. When the patient's temperature exceeds 103 deg. F., the body should be sponged with cold water, followed by a good alcohol "rub." Also a cleansing bath should be given daily, which will assist elimination and reduce abnormal temperature.

The diet should be liquid and nitrogenous. This patient is fed every two hours, at which time he receives eight ounces of milk with a little lime water, alternating with the same quantity of albumen water flavored with either orange or lemon; an ounce of freshly extracted beef juice may be given three times daily at the regular feeding hours. However, as the patient convalesces, his diet should be increased.

Medicinally, at the onset, it is well to give a good calomel purge, followed by a saline. Also the preparation should be selected that will enhance the action of the skin, serve as a diaphoretic, antipyretic, and as an anodyne. To produce this effect upon the patient, we give him a capsule containing:

R	Strychninae sulphatis	gr 1-40
	Pulveris ipecacuanhae et opii	gr iiss
	Quininae bisulphatis	gr iii
	Phenylis salicylatis	gr ii

Misce. Fiat capsula No. 1.
Signa. One such capsule every three hours.

This capsule produced marked diaphoresis, lowered the temperature from 104 3-5 deg. to 102 3-5 deg. in twenty-four hours. On the third day, when the cough became marked, the mucus was tenacious, and the urine contained albumen, we decided that an expectorant and diuretic mixture be given to assist in liquefying the mucus. To attain this end the mixture was prescribed containing:

R	Potassii citratis	gr xv
	Spiritis aetheris nitrosi	
	Liquoris ammonii acetatis	aa f ʒ i

Misce. Signa. One such dose to be taken every three hours in a wine glass of water.

Of course stimulation with strychnine gr. 1-40 hypodermically every three hours was continued.

REPORT OF A CASE OF STENOSIS OF THE PYLORUS IN AN INFANT, WITH RECOVERY.*

BY HENRY T. MACHELL, M.D., TORONTO.

THESE cases occur so infrequently that I feel justified in reporting this one to the Association.

Up to the present time none have been reported in Canada, though my confrères at the Hospital for Sick Children, Toronto, and myself, have been on the lookout for such cases for a few years past, and, especially so, since the meeting of the British Medical Association in Toronto in 1906.

On the 16th January, 1908, I was asked to see Baby F., and obtained the following history from the mother, who had been married 17 years without ever having been pregnant before. The baby, male, was born with forceps on the 22nd Oct., 1907, weight 9½ lbs., apparently healthy. Three or four unsuccessful attempts were made to nurse the baby during the fortnight at the hospital. (The mother thinks the free use of camphorated oil to the engorged breasts was the cause of his not nursing. The first time he made any attempt at nursing was on the 14th day, immediately after washing the breasts to remove all smell and taste of the camphorated oil).

Barley water was given for a couple of days after birth, and vomiting followed. Then "milk and water" for 24 hours, more pronounced vomiting—then barley water again, till baby was a fortnight old.

From the first, vomiting occurred in from ½ to ¾ of an hour after food, whether that food was barley water, "milk and water," or nurse. The vomit consisted of curds, mucus, gas, and watery material, all sour. The vomiting did not seem painful or distressing to baby. Occasionally the vomiting was sudden, explosive, projectile, the vomited material being shot one, two, or three feet. Frequently so large an amount was "pumped out" that it seemed to the mother as if two or three meals had accumulated and been expelled at one time. The routine vomiting dated from the first day, the explosive kind from about the end of the first month. For the past month the latter variety averaged twice a day with an increasing amount of mucus.

Stools: In the first two and a half days no stool, and in the first five days only a "black stain." With several doses of oil, the bowels scarcely moved in the first fourteen days, and in the following two and a half months, never without assistance. On one

* Read at a meeting of the Ontario Medical Association held in Hamilton, June, 1908.

occasion, even with oil and enemata there was no stool in two and a half days. Latterly, the baby was given an injection once daily, which produced a stool rather dry, greenish in color, odorless, not sour. The baby never had diarrhea.

Loss of weight: This has been persistent, but he has not been weighed since birth.

Loss of color: He is becoming paler daily.

Behavior: Latterly he has been very quiet, and has not smiled or cried, but has been sad, dull, listless and apathetic.

He has been under the care of three different physicians.

Examination: The baby looked thin, emaciated, pale-faced, hollowed-eyed with shrunken temples, and transparent, bloodless ears. He was lying in a semi-conscious state, expression sad and apathetic, rather than in pain, yet all his fingers were so tightly clenched as to blanch the skin over the knuckles. His legs were upon the abdomen, yet easily straightened. The lower part of the abdomen was flaccid, depressed, and dull on percussion, while the epigastrium was rounded, bulging, tympanitic, not tender to pressure; and the greater curvature of the stomach plainly visible, just above the umbilicus.

More noticeable perhaps, than the shrunken lower, or bulging upper half of the abdomen, was the plainly visible wave, which traversed the upper part of the epigastrium at intervals of thirty seconds. This wave appeared to have its origin just outside the left parasternal line, about one inch below the costal margin. It travelled diagonally across the epigastrium as far as the right nipple line, to a point half an inch above the level of the umbilicus. It was most visible at its origin, least so at its ending. The nodule-like mass or wave seemed about the size of a small almond where it arose, and ended in a fine wave as it sank or disappeared deep down among the intestines. The stomach was tympanitic on percussion, and so was the wave as it travelled across the epigastrium. The mother noticed me watching the wave passing and repassing, and said she had repeatedly seen it when the baby was stripped.

On deep palpation at the terminus of the wave a semi-solid or soft-solid or palpable point could be distinctly felt—always at the same spot—the point of intersection of the right nipple-line with a line running transversely about half an inch above the umbilicus. At times, the palpable point could be made out readily, at other times it had to be searched for. It was not hard, nodular, or gland-like, nor was it painful on deep pressure. In size, it seemed smaller than the terminal phalanx of a small little finger.

The anterior fontanelle was depressed, and one inch in transverse diameter. The rachitic rosary could be felt and seen. With

the exception of head-sweating and commencing bosses over the frontals, no other evidences of rickets could be made out.

Diagnosis: The diagnosis of simple regurgitation, gastric catarrh, vomiting and constipation due to faulty feeding, and marasmus, could all be excluded by the history of the case. Persistent vomiting, practically from birth, gastric dilatation, visible gastric peristalsis, palpable pyloric thickening, constipation, absence of intestinal colic, and steady loss of weight, taken collectively, point to narrowing of the lower opening of the stomach. The two classical symptoms mentioned by Cautley and Still, of London, were present, viz., (1) the visible gastric wave noticed by the mother, and also by the nurse, before I saw the case, and repeatedly by myself; and (2) the palpable pylorus, felt most easily when the gastric wave was most noticeable. There was no difficulty in sinking the fingers well down in the abdomen as there was neither tenderness nor intestinal distension to interfere with palpation. As to the pyloric obstruction there could be no doubt, but whether it was due to spasm or hypertrophy could not be so positively determined. The clinical history and physical examination favored the latter.

Prognosis: The mother was told that an operation might have to be performed if no improvement occurred within a few days. The prognosis was unfavorable either with dietetic and medicinal, or with operative treatment.

Treatment: Considering the baby's apathy, etc., milder methods seemed safer than operation, and, therefore, calomel and magnesia were given. They brought away hard, dry, curdy masses. This was repeated next day with similar result.

With the view of flushing out the stomach and preparing it for the next meal, an ounce of boiled water was ordered one hour before each nursing. The nurse was diluted by half an ounce of water given just prior to each nursing. To still further reduce the proteid percentage in the mother's milk, the mother was ordered: (*a*) to walk daily to the point of tiring; (*b*) to reduce to a minimum the meat consumption; and (*c*) to lead a quiet, easy-going life without flurry or excitement.

The baby was to be weighed daily.

The bowels were to be moved at least twice daily by enemata, if effectual; by laxatives, if necessary. The stomach-tube was used on the 17th January, and large quantities of glairy mucus and numerous soft, fluffy, milk curds were washed out. This was repeated half a dozen times during the first week after I saw the case.

The medicinal treatment was practically limited to bismuth and cocaine in gr. 1-100 doses.

After the first week there were no explosive vomitings, though

the baby continued, for a couple of months, to "bring up," within ten minutes after nursing, a few mouthfuls of watery whey-like fluid. For the past month no vomiting worth mentioning has occurred, though a little gas is yet belched up occasionally after nursing, and with it frequently a trace of milk.

After the first month there was a steady and almost daily increase in weight. The accompanying chart shows a gain from five pounds, nine ounces, to eleven pounds, in four months.

Remarks: The first day I saw the baby I had no doubt in my own mind that I had to do with a case of hypertrophic stenosis. I could not conceive of spasm being so persistent as to last three months, the age of the baby, without occasional relaxation of the spasm. Moreover, spasmodic cases are usually milder, with absence of vomiting for a few meals, or a few days. This absence never took place for even one meal.

Was it congenital? Apparently so. Vomiting dated from the first day of life, and routine vomiting after food, from the time he was three days old. This is suggestive of a congenital condition.

It may be argued, however, that the first food (barley water) was the means of setting up a functional disturbance of the stomach, which ended in spasm of the pylorus, and that as the pylorus contracted the mucous membrane was thrown into longitudinal folds which blocked the canal. In time, according to Still, the overworked pyloric muscle ends in hypertrophy, which is merely a secondary phenomenon, the result of spasm.

As long ago as 1898, when little or nothing was known of this condition, Cautley asserted that hypertrophic cases *are* congenital. He holds now after ten years' experience in which he has had sixteen of these cases, that "there is no reliable proof that spasm of the pylorus produces hypertrophy."

Having in mind the pathological specimens exhibited by him at the British Medical Association, in Toronto, I can hardly conceive of the hypertrophic variety improving, except, perhaps, temporarily, without operation. The history of his sixteen cases shows that of seven not operated on, all died. Of the nine operated on, six recovered. He says: "So far I have never seen a case, in which I was certain of the diagnosis, recover without operation."

Thus, these two men, both eminent in the metropolis of the Empire, hold opposite views in regard to the causation of pyloric stenosis. When I first saw the case, I felt pretty certain it was one of congenital hypertrophy, and was surprised at improvement occurring at all. It is equally surprising that improvement took place under such simple treatment.

On account of the improvement, and because the baby recovered, I must conclude that the stenosis was spasmodic.

Selected Articles.

PERSONAL EXPERIENCES IN THE SURGERY OF SIMPLE TYPES OF GOITRE.

BY JONATHAN M. WAINWRIGHT, M.D.

Surgeon-in-Chief of the Moses Taylor Hospitals, Buffalo, N. Y., and Scranton, Pa.

When some surgeons are reporting thyroid operations by the hundreds or thousands, it seems a little premature to make a report based on only eighteen cases. However, I have always felt that, while statistics based on an enormous number of operations are very interesting, still they may not be of as much value to the general surgeon as the experiences of other general surgeons who are doing a smaller number of cases. Summarizing the data from the present eighteen cases, it is seen that thirteen of the patients operated on were females and five were males. Concerning the etiology of these cases, it is interesting to note that ten of the eighteen cases occurred in people born in Wales or people of Welsh parentage. It would seem, therefore, that the Welsh are prone to this disease, although these figures cannot be accepted as an absolute indication, for a large proportion of our general patients are Welsh.

Concerning heredity in our comparatively few cases, two were mother and son, and two were mother and daughter. Another patient had a mother who had a goitre, but the mother was not operated on. These cases of apparent heredity were all in Welsh people. Divided according to their pathology, seven of the present cases were simple cysts, two were adenoma with cysts, seven were enlargements of the parenchymatous type, one was of the exopthalmic type, and one was a carcinoma.

As to the extent of the operation, four cases consisted in simply shelling out the cyst, four consisted in removal of the one side, in six one side and the isthmus were removed, and in four a subcomplete operation was done. By the subcomplete operation we mean removal of the entire gland with the exception of a small piece left in to perform the ordinary function of thyroid secretion. Concerning the portion of the gland involved, the right side was involved alone in seven, and the left side alone in four cases. In six both sides were involved, and in one case the isthmus alone

was occupied by a large cyst. In the latter case the cyst extended about one inch below the sternal notch. The remaining tumors lay entirely in the neck.

As to the operative mortality, all the patients recovered from the operation, and seventeen out of the eighteen are alive and well to-day. One (Case 10) died of a very rapid recurrence of malignant goitre five weeks after operation. As to the accidents of operation, there have been none due to the anesthetic, which was ether in all cases. One patient bled so freely during operation that an intravenous infusion was considered necessary on the table, and another who was apparently sent to the ward in good condition began to bleed profusely about three-quarters of an hour after the operation. This patient was at once returned to the operating room and found blanched and nearly exsanguinated. The dressings were soaked with blood and the neck was distended with nearly a pint of clotted blood. The wound was hurriedly torn open and the blood wiped away, but at this time the bleeding had entirely stopped, and after simple packing of the wound the patient made an uninterrupted recovery. The postoperative bleeding is always an event to be dreaded in these cases, and it seems that it has been the general experience that when the wounds are reopened the bleeding points have stopped.

We have been fortunate in obtaining primary union in all of the cases. The large majority of patients run a temperature of 101 deg. to 103 deg. for four or five days after the operation. This postoperative incident is mentioned by a number of surgeons and its exact cause is somewhat in doubt. It may be due to excessive absorption of thyroid secretion, or to some unknown nervous influences due to interference with the thyroid itself. In no case have we noted any symptoms of tetany, although it is only within the past few years that we have taken special care to leave parathyroid glands intact.

Of the four cases of subcomplete removal, three patients showed no after-symptoms referable to thyroid insufficiency. One did develop symptoms of myxedema a few weeks after the operation. She was given thyroid extract for two weeks, at the end of which time the symptoms had disappeared and did not recur after stopping the thyroid feeding. We presume in this case that the portion of the gland left in was not able at once to supply the necessary amount of secretion, but that after the two weeks' thyroid feeding it had become so adjusted as to take care of the normal needs of the body. This patient was perfectly well three years after operation.

As to late results, four cases are so recent that they cannot be considered in this connection. There are fourteen patients who were operated on more than six months ago, and of these fourteen

two could not be traced. One died five weeks later of a malignant recurrence. Of those remaining, eleven were seen from six months to four years after operation, and all were well and engaged in their usual occupation with no symptoms whatever. In eight there was no enlargement of the remaining portion of the gland to be felt, and in three there was little enlargement of the remaining portion of the gland, but in all cases the enlargement was slight and did not cause any trouble whatever.

One cannot, of course, draw very definite conclusions from eighteen cases. However, every surgeon has to adopt certain working ideas from his own experiences from month to month, and some of those that we have been led to make may be of interest.

1. *The question of anesthesia.* There has always been a good deal of dread of general anesthesia in goitre cases, whether they are of the simple or exophthalmic type. In our own experience this fear has not been well founded, as all of our cases have done well under ether anesthesia and none presented any unusual difficulties. This, too, notwithstanding the fact that ether has always been administered by internes who have been giving ether in some cases only a few weeks.

At the present time we always use the drop method, which is additionally useful in these cases as it does not interfere with the asepsis of the operative field. The face is tightly wrapped with a few layers of sterile or bichloride gauze, and over this is put an ordinary chloroform mask, which is again covered with sterile gauze. The ether can then be dropped on by the anesthetist with sterile gloves and there is no danger from infection, either from the etherizer or the patient's mouth. We always give atropine before ether in these cases, partly for its effect in reducing the secretion in the mouth and throat, but more especially on account of the influence which Crile has shown that it exerts in blunting the pneumogastric nerve, in case this nerve is interfered with during operation.

2. *Safety of operation.* While formerly we approached these cases with considerable dread, our continued satisfactory experiences have gradually brought us to feel that under ordinary circumstances operations for the simple types of goitre present no more danger than those for hernia or many other operations of choice. Perhaps the strongest argument for the safety of the operation that we can make is simply the record of eighteen cases with eighteen operative recoveries in such unskilful hands as ours.

3. *The question of surgical treatment and the indications for operation.* From what has already been said, it will be apparent that we feel that the simple type of goitre is nearly always a surgical disease. I believe that we have as yet no other treatment

which permanently influences even the parenchymatous types, and certainly there is none which has any effect on the cystic, adenomatous, or malignant types. It is true that, in a few cases of young women, the enlargement of the thyroid may subside after a time, and unless it causes inconvenience it need not be interfered with. We believe that all cases giving symptoms of pressure and all cases showing progressive enlargement should be operated on at once.

4. *As to the amount of gland to be removed.* In many cysts it will be sufficient simply to shell them out bluntly. In parenchymatous types we believe that a removal of the larger half and the isthmus at least should be done. In one or two cases we have seen a slight enlargement follow operation in the remaining portion, and if the isthmus enlarges in this way it may again give pressure symptoms. Of course, the entire gland must never be removed. Crile's rule of leaving behind an amount of thyroid tissue about equal to the size of the normal gland is the best one to follow.

Abstract of Cases.

Case 1.—Cyst of thyroid. J. B., English, aged forty-nine, was a miner. Family history was negative. Two years ago he noticed a small tumor in right side of neck; never had been painful and never caused trouble with breathing or swallowing. General condition was good.

Operation September 21, 1902, under ether, showed tumor to be a simple cyst in the substance of right half of thyroid gland. It was shelled out by blunt dissection, leaving normal portions of gland intact.

Pathology: Simple cyst one and a half inches in diameter, containing thick, glairy fluid.

Course: Uneventful recovery; primary union. When seen four years later there was no trouble whatever in neck; no thickening of remaining portion of gland, and scar barely visible.

Case 2.—Parenchymatous goitre. Mrs. M. M. was a seamstress. Family history was negative. She had three children. Nine years ago she noticed a swelling in right side of neck. Six months ago the other side began to swell and she began to have difficulty in swallowing and breathing. These symptoms and the tumor gradually increased. Five years ago she was treated with iodine at the University of Pennsylvania, and three months ago she was treated with iodine externally and iodide of potash internally at the M. T. H. Dispensary. There were no signs of Graves's disease.

Operation January 24, 1902, under ether: Excision of right half of gland.

Course: Uneventful recovery; primary union.

Pathology: Microscope showed simple parenchymatous goitre. Mass removed was four by three by three inches. Seen fifteen months later; no symptoms were referable to thyroid gland. There was a slight enlargement in the region of the isthmus, but this caused no trouble.

Case 3.—Cyst of thyroid. Mrs. W., married, aged forty-five. American, housewife, for several years had had a tumor in the right side of the neck, which had gradually increased in size until it caused some pressure on trachea. Swelling involving right half of thyroid gland was about the size of a hen's egg.

Operation May 1, 1903, under ether: Excision of entire right half of gland.

Course: Uneventful recovery; primary union.

Pathology: Tumor removed was spherical in shape and about three inches in diameter. The lower portion contained two cysts about one and a half inches in diameter filled with thick, grumous blood. The remainder of the enlargement was parenchymatous in type. Patient was operated on for gall-stones three years later. When seen again five years later general condition was good. There was slight increase in the left half of the gland, which was especially marked over the trachea and caused slight pressure. Patient refused to have portion over trachea removed.

Case 4.—Cyst of thyroid. A. R., aged eighteen, American, was a laborer. Family history was negative. Two months previously swelling in the side of the neck was first noticed. When first seen it was about the size of a marble, but had grown rather rapidly. It was slightly painful and interfered slightly with breathing and swallowing. If he pressed on the tumor he could not swallow at all.

Operation May 7, 1903, under ether, showed the mass to be a cystic tumor in right half of thyroid gland. This was shelled out by blunt dissection.

Course: Uneventful recovery; primary union.

Pathology: Simple cyst one and a half inches in diameter was filled with clear, glairy fluid. Patient has not been traced since operation.

Case 5.—Parenchymatous goitre. E. W., aged seventeen, single, was a seamstress. Parents were Welsh. Mother has had a very large goitre since childhood (see Case 9). Patient's growth began four years previously. Had shown considerable variation in size, sometimes interfering with swallowing, but never with respiration.

Operation May 17, 1904, under ether: Excision of right half of gland.

Course: Uneventful recovery; primary union.

Pathology: Portion of gland removed is about three inches in diameter and of parenchymatous type. When seen four years later patient was well in every way; no enlargement of remaining portion of the gland, and no symptoms referable to thyroid.

Case 6.—Parenchymatous goitre. W. S., English, aged seventeen, single, was a mine laborer. Mother had a goitre. Five years previously the patient noticed a swelling in the neck. This had gradually increased in size and for the past two years had caused considerable difficulty in breathing.

Operation May 11, 1905, showed both sides of gland considerably enlarged, more so on left side. The entire left half of gland was cut away, and it was then seen that a portion of the enlarged right half had grown over the median line and was pressing on the trachea. This portion was separated by blunt dissection from the remainder of the right half and removed.

Course: Uneventful recovery; primary union. Patient seen one year later. The swelling on the right side was slightly larger than at the time of operation, but caused no trouble. He was working regularly in the mines.

Case 7.—Parenchymatous goitre. V. V., aged thirteen, single, was an American. Family history was negative. Had typhoid fever three years and diphtheria five years previously. Her mother dated the swelling in her throat from the time she had diphtheria, and said she had never been well since. She had had frequent colds and sore throat. She had had a great deal of dyspnea, and her mother had at times noticed bulging of the eyes and tremor of the hands. She had had frequent headaches and numerous convulsions in the last five years; sometimes these had come as often as once a week.

Operation August 15, 1904, under ether: The right half of gland was removed.

Course: Uneventful recovery; primary union.

Pathology: Tumor was about four by two by three inches and of parenchymatous type. There were no cysts.

Patient returned to hospital in December, 1905. She said that since her previous discharge she had been relieved of her constitutional symptoms, but there had been a gradual growth of the gland on the unoperated side. Examination at that time showed the old scar in good condition, and there was no tumor on the right side of the neck. On the left side there was a tumor about six inches long, and having the typical characteristics of a parenchymatous goitre.

Second operation December 30, 1905, under ether: The entire left half of the gland was removed, with the exception of a portion about one-half inch in diameter near its median border.

This portion was most adherent to the surrounding structure, and it was considered it would get the best blood supply if left in.

Pathology: Tumor removed was six by three by four inches and weighed six ounces. There were no cysts, and on section it showed the typical gross appearance of the parenchymatous goitre. Microscopic examination showed a parenchymatous goitre.

Course: Discharged twenty-one days after operation; primary union in wound, and patient apparently well. She returned, however, in about one week and complained of headaches, weakness and drowsiness. She was given thyroid extract by mouth, and these symptoms entirely disappeared at the end of the week. Since that time she has been perfectly well without thyroid feeding. She was last seen three years after the second operation.

Case 8.—Adenoma and cyst of thyroid. Mrs. G D., aged twenty-six, married, Welsh, housewife, had an enlargement of the thyroid gland for a number of years, which had caused considerable trouble with swallowing.

Operation August 17, 1906, under ether: Right half of gland and isthmus removed.

Pathology: there was one cyst about one inch in diameter filled with thick, glairy fluid, and remaining portion of the right half was enlarged to about twice its normal size. Sections showed an adenomatous structure. The acini were very small and many did not contain any colloid at all, but were represented by very small tubes lined with epithelium which was much more cuboidal in shape than the normal thyroid tissue. There were also large areas of poorly-formed connective tissue which contained in its meshes many atrophic degenerated acini, very few of which contained colloid.

Course: Uneventful recovery; primary union. When seen twenty months later patient was well; no symptoms referable to thyroid.

Case 9.—Adenoma and cyst of thyroid. Mrs. J. W., aged fifty-two, Welsh, housewife, said she had had a tumor in the neck ever since she could remember. This had grown larger with each pregnancy, but had been about the same size for the past four years. It caused considerable trouble with breathing. A daughter of the patient also had a goitre (see Case 5). Patient had never had any exophthalmic symptoms.

Operation July 21, 1906, under ether: Right half of isthmus and the large lobulated portion of the left half which was pressing on the trachea were removed. Wound was apparently thoroughly dried and patient returned to ward in good condition. About three-quarters of an hour later word was sent back to the operating room that the patient was bleeding profusely. She was immediately brought back to the operating room with her face blanched

and pulse weak and rapid. She complained very much of air hunger and her bandages were soaked with blood. The wound was hurriedly opened without further anesthesia; the entire cavity in the neck was filled with clotted blood. This was rapidly wiped away, but no bleeding points could be found at that time. The cavity was tightly packed with plain gauze and the skin again sewed up except for a small portion for removal of the gauze. About 500 c.c. of salt solution was given intravenously at that time, and a similar amount given into the tissues under the breast. She was returned to the ward and made an uneventful recovery. She was discharged twenty days after the operation with the wound healed.

When seen eighteen months later there was slight enlargement of remaining portion of gland, but this was giving no trouble.

Pathology: The portion of the gland removed from right side was about five by two by three inches in diameter. The portion removed from the left side was spherical and measured about one and a half inches in diameter. The mass removed weighed six and one-fourth ounces after rupturing a few small cysts. On section the tumor resembled a typical parenchymatous goitre. There were three or four cysts, the largest being one inch in diameter. In several places there were calcareous deposits; one small lobule about three-fourths of an inch in diameter had an entirely different appearance from the rest of the tissues. It was yellowish-gray in color and looked like carcinomatous tissue. Microscopic sections did not show any cancer, but a large portion of them were of the distinctly adenomatous type as in the previous case.

Case 10.—Carcinoma of thyroid. Mrs. D. Clinical history was lost. One son had a goitre (see Case 12). Woman was in fairly good condition. There was an enormous tumor in the neck corresponding to the thyroid gland; it was tense and very slightly movable; surface was smooth and not nodulated. It extended from the angle of the jaw to the clavicle and filled up the entire anterior portion of the neck.

Operation April 1, 1907, under ether: The entire thyroid gland with the exception of a small portion at the apex of the upper right lobe was removed. The dissection was very extensive, and when finished the styloid process of the mastoid bone was exposed in the upper portion of the cavity, and the apex of the lung was exposed at the lower portion. There had been a good deal of hemorrhage, and patient was given an intravenous infusion on the operating table.

Patient made a good recovery from operation, but within two weeks the swelling had recurred, so that at the end of that time it was practically as large as before the operation. It soon interfered a great deal with respiration, and patient died five weeks

after operation on account of mechanical pressure on the trachea.

Pathology: Section showed a diffuse infiltration of cells resembling the normal thyroid epithelium. In many places these cells were present in large diffuse masses, and in other places the tissues retained a more typical alveolar structure.

Case 11.—Parenchymatous goitre. K. R., aged sixteen, single, Irish, was a schoolboy. There was no goitre in family. He noticed tumor in neck five weeks before admission; no trouble with swallowing or shortness of breath. It had grown very rapidly since first noticed. Tumor involved right half of thyroid gland.

Operation April 4, 1907, under ether: Right half of gland was removed.

Course: Uneventful recovery; primary union.

Pathology: Sections showed typical parenchymatous goitre.

When seen one year after operation condition was good. He works regularly in a silk mill. There was no enlargement of opposite side.

Case 12.—Parenchymatous goitre. D. D., aged twenty-one, single, Welsh. Mother was operated on for goitre in M. T. H. (see Case 10). Patient first noticed growth in neck two years before. It caused considerable pain and some trouble with breathing. Patient had been very nervous since she first noticed the growth; she felt weak and dizzy, and had no ambition. Swelling occupied isthmus and left lobe.

Operation July 20, 1907, under ether: Left lobe, isthmus, and part of right love were removed.

Pathology: Typical parenchymatous goitre; no cysts. The left lobe was three by two by two inches. The portion of the right lobe removed was about the size of a walnut.

Course: Uneventful recovery; primary union. When seen a few months after operation patient was well.

Case 13.—Parenchymatous goitre. B. P., aged twelve, Welsh, was a schoolgirl. There was no goitre in family. She first noticed swelling in neck about one month before, and it had grown very rapidly since that time. It interfered considerably with swallowing and breathing.

Physical examination revealed a tumor corresponding to right half of thyroid gland about the size of a man's fist, and a similar tumor on left side but somewhat smaller.

Operation October, 1907, under ether: Thyroid vessels on right side were ligated and right half of gland was removed. When this was removed it was seen that the enlarged left half still pressed considerably on the trachea in the middle line, so that the left half was removed in a similar way, with the excep-

tion of a small piece at the upper corner about three-quarters of an inch in diameter.

Pathology: Sections resembled exophthalmic type; acini moderately dilated with colloid, which took a bluish tinge from the hematoxylin. Many acini were irregular and branched. The alveolar epithelium was frequently of the high columnar type, but always in single layers.

Course: Uneventful recovery; primary union.

When seen six months later patient was well; no enlargement of remaining portion of gland.

Case 14.—Parenchymatous goitre. Mrs. H. W., aged thirty, American, was a housewife. There was no trouble of similar character in family. Her tumor appeared when she was twelve years old; first, directly in the median line, later on the right side, and then on the left. It increased gradually, and she did not notice any change in size during the child-bearing periods. During the past year it had grown very rapidly and pressed on the trachea. Her face was often bloated, and the blood in her face did not circulate well. She has usually been nervous, but has had no eye symptoms.

A physical examination revealed a well-nourished, healthy patient, but skin of face was slightly edematous. There was a very large tumor corresponding to the thyroid gland and involving both halves and the isthmus, but the right half was much larger. The veins over the tumor were very prominent; the eyes were not bulging and there were no signs of Graves's disease.

Operation January 23, 1908, under ether: Right half of isthmus was removed, but with considerable difficulty and after a good deal of bleeding. There was still a large mass formed by the left half of the gland, but on account of the patient's condition it was considered better to remove this at a later time. Wound was carefully dried and sewed without drain. Patient made a good recovery from this operation.

Second operation March 7, 1908, under ether: The entire left half of the gland was removed, with the exception of a small portion near the middle line. Wound was sewed tight without drain.

Pathology: Portion of tumor removed at first operation weighed 500 grammes. Portion removed at second weighed 385 grammes. Both had typical appearance of parenchymatous goitre on cross section and also under the microscope.

Patient reported by letter six months after operation that she was perfectly well; there was no enlargement of the neck of the remaining portions of the gland, and no disturbances of any kind.

Case 15.—Cystic goitre. Mrs. J. J., aged thirty, Welsh, was a mill worker. There was no similar trouble in family. She had

noticed a fulness in the neck for several months, but this had not caused any difficulty. She came to hospital for movable kidney with aggravated symptoms and wished thyroid tumor removed at the same time kidney was operated on.

Physical examination revealed a very freely movable, tender kidney on right side. Just above sternal notch there was a tumor corresponding to the thyroid about three inches in diameter. This was soft and smooth in outline and had the typical appearance of a cystic goitre.

Operation July 11, 1908, under ether: Curved incision about one inch above the sternum. Tumor was a cyst apparently growing from the isthmus. It was shelled out without ligating any of the thyroid vessels, and only a few bleeding points in its bed had to be ligated. The cyst extended about one inch below the margin of the sternum in the middle line.

Course: Uneventful recovery; primary union.

When discharged, one month after operation, the patient was well.

Pathology: Cyst removed was two inches in diameter and contained a clear fluid. Microscope showed usual appearance of cystic goitre.

Case 16.—Cystic goitre. Mrs. W. J. E., aged forty-three, married, Welsh, was a housewife. There was no goitre in family. Three months before she was suddenly awakened one night with feeling of choking in her throat. This had passed off, but she had had considerable shortness of breath at intervals ever since. She said she did not notice the tumor in her throat until about two months before, when it was its present size. She was hoarse at times, had no trouble with swallowing, and was somewhat nervous and excitable.

Physical examination revealed a tumor in the neck corresponding to the left half of the thyroid gland. Tumor was about two inches in diameter and most prominent directly over trachea. There were no signs of Graves's disease.

Operation July 11, 1908, under ether: Tumor easily exposed and found to be a cyst, occupying nearly the entire left half of thyroid gland. The thyroid vessels were tied, and the entire left half and isthmus were removed.

Course: Uneventful recovery; primary union.

Discharged eleven days later; the patient was well.

Pathology: Cyst removed was about two inches in diameter and contained about one ounce of clear yellow fluid. The cystic portion lay directly over the trachea. Microscope showed a typical cystic goitre. Portions of the thyroid removed uninvolved in the cyst were normal.

Case 17.—Cystic goitre. Mrs. E. G., aged twenty-eight,

married, Irish, was a housewife. There was no goitre in family. She first noticed tumor in neck three weeks before. She said that it bothered her some in swallowing, but she had no trouble in breathing. Patient said she was quite nervous.

Physical examination revealed a small tumor about one inch in diameter corresponding to thyroid gland. There were no signs of Graves's disease.

Operation July 23, 1908, under ether, showed that the enlargement consisted of a cyst involving left half of thyroid gland. Cyst was about one inch in diameter. The thyroid vessels on left side were ligated and cyst and entire isthmus were removed. The right side and a small portion of the left above the cyst were left intact.

Pathology: Microscope showed typical picture of cystic goitre. Isthmus showed normal gland tissue.

Course: Uneventful recovery; primary union.

Discharged eight days later; the patient was well.

Case 18.—Cystic goitre. E. A., aged fifteen, single. Father was Dutch; mother, Welsh. There had been no similar trouble in family. Eight months before she noticed difficulty in swallowing, and a short time after she began to have shortness of breath on exertion. One month before she noticed a small swelling on the right side of the neck.

Physical examination revealed a tumor about one inch in diameter corresponding to left half of thyroid gland. There were no signs of Graves's disease.

Operation August 22, 1908, under ether: Curved incision over lower part of neck. Tumor was found to be a cyst involving the upper part of left half of thyroid gland. Thyroid vessels were ligated and entire left half and isthmus were removed.

Course: Uneventful recovery; primary union.

Discharged fourteen days later; patient was well.

Pathology: Isthmus and lower part of thyroid were normal. Upper part was a cyst one and a half inches in diameter containing thick, grumous fluid. Entire tissues removed weighed fourteen grammes in fresh state.

Microscope showed no epithelium in section of cyst edge. The cyst edge contained very little connective tissue capsule, but fairly normal thyroid tissue extended close up to cyst edge. There was practically no pressure on the acini near the cyst edge. Sections farther from cyst edge showed thyroid tissue with acini rather larger than usual, but otherwise normal.—*The Therapeutic Gazette.*

THE USE OF THE X-RAY IN THE TREATMENT OF EXOPHTHALMIC GOITRE

BY J. C. PRICE, M.D., SCRANTON.

The group of symptoms, known as exophthalmic goitre, is caused by a hypersecretion or activity of the thyroid gland accompanied by a hypertrophy of its parenchyma and a much increased blood supply to the part. Whatever may be the exciting cause of this condition, the relief obtained by removing part of the gland would indicate that an agent which could cause a more or less permanent atrophy and decreased blood supply to the gland without surgical interference, danger or shock to the patient, would be an ideal remedy for this condition.

I have been led, by the observation of others and my own limited experience, to the belief that we have such an agent in the X-ray. The well-known power of the X-ray to cause glandular atrophy and diminution in the calibre of blood-vessels, more or less permanent, depending upon the length and number of exposures, fills the indication.

I have treated three cases of exophthalmic goitre by this method with good results; the technique employed is as follows: A tube having a penetration of six or seven on the radiochrometer scale was used, allowing one milliampere of current to pass through it. The anode being placed twelve inches from the gland, the patient's face and chest are well protected by tinfoil, allowing only the neck to be exposed to the X-ray. The exposed part is covered with five or six layers of wet gauze, which acts as a filter, absorbing some of the softer rays and catching any electrified particles that may be projected from the tube to the patient; these particles sometimes infect the skin, causing a very inconvenient dermatitis. The exposure, lasting from ten to fifteen minutes, is given three times a week at first, and later once or twice a week. The exposures are discontinued at the first indication of redness of the skin, to be taken up again as soon as they may be without danger of a severe dermatitis.

Other than the X-ray treatment, the patient is given autocondensation, an electrode being placed over the epigastrium. This is given for the sedative effect on the circulation and the nervous system and the stimulating effect on the digestive organs to correct as far as possible any autointoxication, which may be an exciting cause of the disease.

The patient is advised, as far as possible, to exclude meat from the diet and is given arsenic and iron if he shows much

anemia. A glandular reaction is shown very early in the treatment, characterized at first by swelling and hardening, and later by a marked diminution in the size of the gland. This is well described by Dr. Cook in his report of five cases in the *Journal of the American Medical Association,* March 7, 1908.

The reaction takes place in a lesser degree from time to time as the treatment progresses; the patient is soon relieved of the most marked nervous symptoms, especially the insomnia, the sleep becoming quiet and restful. There is usually a decided fall in the pulse-rate after the treatments, this being most marked at first, the pulse reacting less and less as it becomes nearer normal. The exophthalmos gradually becomes less prominent until, when the patient has had a normal pulse-rate for some time, it is scarcely noticeable.

The treatment should be continued at greater intervals after the patient has become practically normal, to insure against a return of the disease. The operator must bear in mind that the atrophy of the gland will progress for some time after the treatments cease, followed by a gradual regeneration of the glandular epithelium, which, I believe, will never be great enough to cause a return of the disease if the treatment has been continued long enough.

If the cures produced by this treatment prove permanent, the advantages are many, among which is the freedom from the mortality which occurs in surgical treatment; this mortality, according to Dr. Mayo's report of two hundred cases (*Journal of the American Medical Association,* July 4, 1908), is five per cent. from operation, and many surgeons have larger.

The patients will submit to X-ray long before they will surgery, thus permitting us to treat them before their general system is profoundly affected. They may continue their ordinary occupation, are freed from the harmful excitement that must occur before an operation, and the long convalescence following. There is no disfiguring scar and there is less expense.—*The Therapeutic Gazette.*

THE PREVENTION, BY OPERATION AND OTHER METHODS, OF RETROVERSION OF THE UTERUS AFTER CHILDBIRTH.*

BY EDWARD P. DAVIS, M.D.,

Professor of Obstetrics in the Jefferson Medical College of Philadelphia.

Cases of retroversion may be divided into those which are accompanied by retroflexion and those which have no flexion. The former are usually congenital, arising from lack of development, and are often without disease of the surrounding tissues. The latter, cases of simple retroversion, arise from a sudden strain which dislocates the uterus, or injury to those tissues which maintain it in its normal position. As infection often complicates such injury, the tissues surrounding the uterus are infected in these cases. A retroflexed and inverted uterus, pregnant, requires attention during the early months of gestation. If it does not rise from the pelvic cavity by the end of the third month, the patient should be anesthetized, the uterus brought into the proper position and maintained by a wool tampon. This is important in preventing a return of the retroflexion after labor, for in some cases the development of the uterus during pregnancy corrects the tendency to backward displacement.

Retroversion of the uterus is most apt to follow prolonged and difficult labor, in which the supports of the uterus are over-distended, and in which injury to the tissues occurs. To avoid this every effort should be made during labor to secure a favorable mechanism; remembering that serious laceration follows delivery with the occiput posterior, the obstetrician should secure anterior rotation. The patient should be placed upon that side toward which the presenting part is directed; if necessary, dilation accomplished by elastic bags; uterine contractions freely stimulated: the forceps should not be applied until engagement is pronounced, moulding well advanced, and rotation partially secured. If the head does not engage the case is one for podalic version, if the pelvis is sufficiently large to permit the birth of a living child. If the pelvis is contracted, or the child overgrown, the pelvis must be enlarged, or the child extracted by abdominal incision, or embryotomy performed. The use of the forceps should be under surgical anesthesia to relax completely the tissues most liable to injury.

The immediate repair of lacerations is of great importance in preventing displacement of the uterus. As these cases often occur where an instrument or the hand has been introduced within the

* Read before the State Medical Society of Pennsylvania, Sept. 17, 1908.

uterus, the operator's first duty is to avoid sepsis and hemorrhage. After the delivery of the placenta and its appendages the uterus should be irrigated with lysol 1 per cent., brought into proper position, and thoroughly packed with iodoform 10 per cent. sterile gauze. Strychnine and ergot should be given by hypodermic injection to secure good uterine contraction. With these safeguards against infection and postpartum hemorrhage, the operator may proceed to discover and repair lacerations.

Especially likely to be followed by uterine displacement are lacerations of the cervix, extending to or beyond the vaginal junction into the fascias and connective tissue near the insertion of the uterosacral ligaments. These tears are not discovered without careful examination. In addition to digital search the cervix should be grasped by tenaculum forceps, drawn downward and strongly to one and then to the other side. By retracting the vaginal tissues, such deep and extensive tears can be located. They should be repaired with No. 2, ten- to twenty-day chromicized catgut, inserted by a fully curved needle, especial care being taken to bring together the tissues at the highest point of the tear. This is a matter of considerable difficulty but of great importance. The upper half of the torn cervix may be brought together in a similar manner. As the tear extends along the pelvic floor toward the perineum, it should be closed with catgut, especial attention being given to the lateral sulci. In very extensive tears it may be necessary to use two tiers of suture, the first of finer catgut to remain buried in the bottom of the wound. It is occasionally necessary to twist or ligate with fine catgut bleeding vessels in these deep lacerations.

When the posterior segment of the pelvic floor has been closed, the operator may turn his attention to the anterior segment. This comprises the anterior vaginal wall and the tissues about the urethra. Laceration in this region is not infrequent, and if extensive is accompanied by hemorrhage and by considerable injury to the uterine supports. Such tears should be closed with catgut, care being taken to place a catheter in the bladder and urethra to avoid injury to the urethra, if tears in this vicinity are deep.

When both segments of the pelvic floor have been repaired the operator can proceed to close the perineum. If the laceration has extended into the bowel, especial care should be given to bring together the ends of the sphincter with buried stitches of fine catgut. The bowel should then be closed and the pelvic floor brought together as in other cases. To unite the perineum, stitches should begin at the lower border toward the anus, silkworm-gut being inserted, from below upward, until the perineal stitches meet those already placed in the pelvic floor.

When the patient is in shock this operation may be postponed from twenty to twenty-four hours after labor.

The effort to perform this operation properly will utterly fail if the patient is on a low, broad bed, if the light is poor, if the operator has not suitable assistance, and if he is not accustomed to surgical technique. A physician who cannot fulfil the necessary requirements should not attempt such repair. If hemorrhage is present he may tampon the uterus and vagina tightly with iodoform gauze, removing this in thirty-six hours and giving one copious irrigation of lysol 1 per cent. If the patient needs repair this must come in these cases as a secondary operation.

Physicians do themselves great injustice in attempting obstetrical operations without proper facilities. If the physician does not care to improvise an operating table, the patient's bed may be raised upon blocks prepared during her pregnancy, and if a narrow bed be used the result is fairly satisfactory. Sufficient assistance should be summoned to difficult confinements to enable the attendant to operate under favorable circumstances, to his own satisfaction and greatly to the benefit of the patient. Those who practise obstetrics must acquire the necessary skill and facility, if they are to do justice to themselves and their patients.

The results of operations for the closure of lacerations in the tissues high in the vagina and about the cervix depend greatly upon the presence or absence of infection. Should this accident occur, only partial, if any, union will follow, and lacerated surfaces become suppurating wounds which must heal by granulation. In cases in which infection develops it is necessary to remove stitches, allowing the parts to open freely for drainage.

In our experience infection has not developed as a result of the closure of these wounds in the manner described. In cases severely infected at the time of labor, or when found infected immediately after labor, we do not attempt to close lacerations but treat the patient as an infected case. In the experience of myself and those who work with me cervical lacerations requiring suture have healed in 80 per cent. of cases, in 10 per cent. there has been partial union, and in 10 per cent. failure of union. In no case has infection developed as the result of this operation. The results have been sufficiently good for us to follow this method of operating both in hospital and private practice.

The binder can undoubtedly induce backward displacement of the uterus if it be applied from below upward, or worn too tightly and continuously. In treating a relaxed uterus which threatens hemorrhage, the greatest pressure should not be applied directly upon the uterus, but above it by a thick pad placed transversely across the abdomen from the epigastrium downward; this carries the fundus downward and forward against the pelvic brim. The

binder should not be used too long, but so soon as the patient's general condition justifies it should be omitted. Where patients can have massage after labor, accompanied by movements of resistance and modified Swedish movements, such treatment forms a most valuable aid in restoring the normal condition of the tissues and preventing displacement.

The time for the patient to get up should be determined by the condition of the individual and not by fixed rule. Patients are usually more comfortable and less likely to throw the uterus backward if they sit in a reclining chair rather than upright in bed. In the chair the patient leans back comfortably and does not strain the abdominal muscles, and there is little or no tendency to backward dislocation of the uterus. Where the patient sits almost erect in bed the posture is much less comfortable and the abdominal muscles are often thrown into considerable tension. In cases in which there is a tendency to retroversion, so soon as the patient can leave her bed she should assume the knee-chest posture from ten to fifteen minutes night and morning. The nurse should take care that the vagina becomes thoroughly distended with air. Constipation and straining in defecation should be avoided.

In aseptic patients in whom the measures already described fail to keep the uterus in proper position, pessaries may be used so soon as the lochial discharge ceases. The kind of pessary will depend upon the conditions in the individual case. A rubber-covered spiral ring is useful in many cases, while in others a retroversion pessary with broad posterior bar gives a better result. Where there is no evidence of inflammation or exudate and the patient tolerates a hard pessary badly, a wool pessary boiled in lysol one per cent. may be used instead. These should be made in the form of a bar, which is placed across the posterior vaginal vault, carrying the cervix backward, or if this cannot be retained in position, a large ball tampon may be used. Such pessaries cannot be worn longer than twenty-four hours, and during their use the patient should have vaginal douches, at least once in twenty-four hours, when the pessary is removed. In cases in which the retroversion is accompanied by subinvolution, benefit sometimes follows the use of ichthyol applied on wool tampons.

The pessary, however, must be considered as a crutch which the patient is to discard as soon as possible. As the patient gets up and is able to take exercise, her general health good and constipation absent, she may try to do without the pessary, still continuing the knee-chest posture. If she can be persuaded to avoid corsets, using a suitable waist instead, her chance for avoiding retroversion will be much better. If she nurses the child involution will usually be better, but in anemic women long-con-

tinued lactation may bring about relaxation of the uterine supports and favor the development of retroversion.

When, however, a reasonable time has elapsed with the use of the pessary, and retroversion promptly recurs when the pessary is not worn, the permanent cure of the dislocation by operation should be considered. Ventrofixation and ventrosuspension should not be selected until after the menopause. Shortening of the round ligaments, or shortening of the uterosacral ligaments, or both, are the operations indicated.

In shortening the round ligaments the intraperitoneal method is better than Alexander's operation. The operator may select transverse or longitudinal abdominal incision as he prefers. Gilliam's method is essentially that which has given the greatest success, and has been modified by many operators in accordance with their individual judgment and experience. The round ligaments may also be shortened by bringing them through the broad ligaments behind the cervix, if this be thought best. I have had good results in shortening the round ligaments within the abdomen by placing a double catgut ligature about the round ligament at its middle, drawing the loop of ligament through its canal upward and inward, and sewing each ligament to the fascia and peritoneum on the under surface of the abdominal wall, one-third between the pubes and umbilicus. The intra-abdominal operation gives the operator a chance to examine the pelvic tissues and to attack any pathological condition suitable for operation which he there may find. An obtrusive appendix can sometimes be "lifted" without detriment to the patient.

Intra-abdominal shortening of the uterosacral ligaments has not in my experience been easy or successful. Much better results have followed the closure of vaginal lacerations, extending deeply into the fascias and involving the uterosacral ligaments, in the manner described.

In cases in which congenital retroflexion has been present before pregnancy, all means short of operation may fail to prevent its recurrence after labor. Where involution is good, infection absent, the uterus mobile in its retroflexed position, and the ovaries and tubes not prolapsed or adherent or tender, there is no necessity for correcting the retroflexion. Such a patient will be comfortably well if she is not told of the retroflexion. Where, however, the patient recovers from childbirth, and retroflexion and retroversion, with prolapsed and adherent tubes and ovaries, impaired uterine mobility, and general tenderness, are present, the case requires treatment for pelvic infection and not for simple dislocation of the uterus.

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Editorials.

THE TORONTO FILTRATION PLANT.

THE Toronto filtration plant is to be located on the island opposite the city, near the intake pipe, which extends from the south shore of the island into Lake Ontario. Of the twenty acres set apart for the purpose, ten will be required. There will be twelve filter beds, two rows of six each, and the water will be pumped from the intake pipe between these rows of beds. It will be filtered

through sand and stone, afterward running out through tiles laid on the bottom to the pure water reservoir at the north end. This will have a capacity of 3,000,000 gallons. From this reservoir the water will flow into the 72-inch steel pipe leading to the tunnel under the bay.

In addition to the electrical engine to operate the pumps there will be a steam engine to be used in case of accident to the electrical engine. The tanks will be of concrete and sodded on top. The cost of the filtration plant is estimated at $750,000.

This water filtration plant will be a source of gratification to Torontonians, as it has been expected for some time. Seventeen years ago, the Chairman of the Provincial Board of Health of Ontario, after alluding to the foul condition of Toronto water, at that time used the following words: "How much better then, would it not be for us to have our water filtered, being thus quite secure and satisfied that no matter what conditions might supervene during the transmission of Lake Ontario water while passing through Toronto's sewage-laden bay, it would be delivered to the people after filtration in a state of crystal clearness and absolute purity from pathogenic or saprophytic germs?" (Eleventh Annual Report of Provincial Board of Health of Ontario for the year 1892, p. 41).

Since the beginning of the present year the Toronto water supply, instead of being brought to the city from Lake Ontario through an iron pipe, part of which lay at the bottom of Toronto bay, now flows through a 72-inch tunnel excavated in the rock beneath the bay. This tunnel was constructed at a cost of $150,000, and the view held by many, was, and is, that water so conveyed from Lake Ontario should be quite pure. Such is not the opinion held by Dr. Sheard, M.H.O., who, in reply to a communication from the civic Board of Control, reported the analysis of city water for a period before and after the completion of the tunnel beneath the bay. Through Dr. Sheard's courtesy we are enabled to supply this report as follows:

Daily Tests for B. coli:

January, 1908, B. coli present 2nd, 4th, 13th, 14th, 15th, 16th, 24th and 28th; eight days in all.

January, 1909, B. coli present 4th, 5th, 6th and 14th; four days in all.

February, 1908, B. coli present 1st, 9th and 19th; three days in all.

February, 1909, B. coli present 1st, 9th and 17th; three days in all.

Bacteriological weekly count showing bacteria per cubic centimeter present in the water:

1908:—Jan. 7th, 975; Jan. 13th, 2385; Jan 20th, 1260; Jan. 27th, 1015; Feb. 3rd, 315; Feb. 10th, 425.

1909:—Jan. 4th, 860; Jan. 11th, 165; Jan. 18th, 130; Jan. 26th, 770; Feb. 1st, 155; Feb. 8th, 95.

To explain these data, Dr. Sheard says:

"In considering the above reports it is necessary to understand that the water of Toronto harbor was comparatively free from ice throughout January, 1908, whilst it was covered with ice in 1909, thus withdrawing the water from wind influence, consequently there would not be the same tendency for the polluted water of the bay to be driven through the eastern and western gaps. This, in my opinion, is entirely responsible for the apparent improvement in the water supply of 1909. I might point out that this improvement is not so very marked, being but a slight improvement."

Before accepting Dr. Sheard's explanation as conclusive, it would be well to await the bacteriological weekly counts during March, April and May, 1909, and compare them with the counts made in the same months, 1908. Should the comparisons continue favorable to 1909 water, the inference would be that the water tunnel does exclude bay water from the supply better than the old iron conduit did, the condition of the lake water at the intake being the same in both years. If unfavorable to the water of 1909, they would indicate that the water tunnel, though tight, does not ensure a pure water supply, and that the contamination of the Toronto water supply is caused by currents flowing from the polluted bay towards the intake. That outbreaks of typhoid fever were not of general occurrence and severity in Toronto sixteen years ago, when the water supply was drawn from a sewage-polluted bay, was gladly accepted as a fact; but was not intelligible to learned or unlearned. An explanation of this anomaly seems to have been reached by American investigators, who have specially studied the survival of typhoid germs in potable water and in foul water. (See Bacteriological Examination of Water Supplies: Savage). Several independent observers have studied this ques-

tion and we introduce here a quotation from Russell and Fuller, who reported on the longevity of typhoid germs at Chicago in 1906. They say: In waters highly polluted with saprophytic bacteria, such as is the case in sewage, the bacillus typhosus is unable to survive for more than a few days, (three to five days in the experiments described) a period of time materially shorter than that which is noted in normally unpolluted waters."

The investigations made by these bacteriologists warranting the conclusions that the longevity of the typhoid bacillus in water is materially affected by the germ content of its surroundings, go to prove that, in the impure water of Toronto bay, the typhoid germs perish in a few days, and are powerless to propagate typhoid fever in people who drink Toronto water. Our sanitary shortcomings have assisted in saving us from typhoid fever; the more defiled Toronto bay has become, the shorter the span of life of the typhoid germs discharged into it from the city sewers. It must also be admitted that the addition of disinfectants to typhoid stools has been generally practised here since the establishment of the Provincial Board of Health of Ontario in 1882.

Grateful as Torontonians are to the saprophytic water of Toronto bay, they will not convert it into a sanitary palladium; but will change it into a liquid less hostile to bacteria, while more pleasing to the senses, by installing a trunk sewer and outfall to carry the sewage away from Toronto bay, and several miles to the east of the city.

In the meantime, learned and unlearned in Toronto rejoice that, instead of experimenting with the bacteria in the city water supply, they will soon be able to drink the filtered water of Lake Ontario—clear as crystal and free from pathogenic or saprophytic germs. J. J. C.

THE CONTROL OF BOVINE TUBERCULOSIS.

In a paper read at the Washington Congress on Tuberculosis, October 1, 1908, Mr. J. G. Rutherford, Veterinary Director-General and Live Stock Commissioner in the Department of Agriculture, Canada, advocates a cautious policy in dealing with herds of cattle, some of which have been proved to be tuberculous

by the tuberculin test. He is opposed to the testing of herds belonging to owners who are willing to submit the herds to the tuberculin test, and states that it is wrong to accept as final the results of the tuberculin test alone, because, owing to a surreptitious dosing of the cattle with antipyretics by dishonest owners, prior to the injection of tuberculin, the biological test is vitiated, and a proper normal reaction is not got, even in tuberculous animals. Hence, when the tuberculin test is made, clinical symptoms should be looked for. Should tuberculosis be present, the following symptoms will be observed in from six to twelve hours:—Rigors, staring coat, general excitation, and frequently diarrhea. In less marked cases, there are coldness over loins, quarters, thighs, and tail, subacute excitation and general malaise. Even when these symptoms have passed off, the animal maintains a standing posture and is more or less stiffened; there is loss of appetite, rumination is suspended, and in milch cows the flow of milk is diminished.

To inject tuberculin into the animals of a herd, without following up the investigation by making subsequent tests, is wrong. For instance, a herd of say one hundred cattle are tested with tuberculin, and twenty-five reactors found. These twenty-five animals, together with any others, which, owing to an advanced stage of the disease, fail to react to tuberculin, but may be detected by clinical examination, are slaughtered and the premises disinfected. A retest made after three months will probably reveal five to ten new reactors. The ten reactors may, however, have inoculated some of the remaining sixty-five animals and, three months later, some of the latter will be found affected.

In lieu of the optional method of testing with tuberculin, Mr. Rutherford recommends that all clinical, or if they can be detected, open cases of tuberculosis should be slaughtered, all the adults in herds, in which such cases are found, to be treated as if diseased, marked and segregated, all milk from such herds to be pasteurized; the progeny to be effectively separated from the adults, regularly submitted to the tuberculin test and kept by themselves until the disease has been eliminated from the premises. Animals added to the healthy herd to be tested on purchase and retested after three months isolation. The presence of one or more clinical cases of tuberculosis in any herd would be a reasonable ground

for official interference with such a herd, and, if notification of tuberculosis by owners or veterinarians were made compulsory, a basis for official interference with herds would, in most instances, be forthcoming.

While waiting for legislation to make his method workable, Mr. Rutherford advises the proper ventilation of cattle byres, or rather the kind of ventilation which proves curative in human tuberculosis, viz., a life in the open air. To illustrate this feature in the elimination of tuberculosis from herds, Mr. Rutherford describes an experiment which he has been making with a herd of forty-three cattle, twenty-eight of which had reacted to tuberculin, the remaining fifteen being apparently free from that disease, the whole herd having been kept under open air conditions since the fall of 1905. This experiment is not yet concluded, but the following results have been noted: Of the twenty-eight reactors, one has broken down from generalized tuberculosis, another has been killed for tuberculosis of the udder, none of the healthy animals kept in contact with the reactors have become infected, in spite of the fact that from time to time animals suffering from acute generalized tuberculosis have been introduced into the herd and allowed to mix with its original members. Of the calves dropped and raised by reacting cows, seventy-five per cent. have so far failed to react, while twenty-five per cent. have reacted at various stages, ranging from four months to one year. One calf died when six weeks old from generalized tuberculosis, this case being probably congenital. The cattle had no shelter but open sheds, and, with the exception of a few of the weaker animals, have been fed nothing but hay for the three winters during which they have been under observation, Mr. Rutherford thinks that his experiment proves that young animals can be, and are, most frequently infected with tuberculosis through the digestive system; also that, in the case of adult animals, infection through the air passages plays an important part. He thinks that had the healthy cattle, in his experiment, been kept with their diseased companions under ordinary stable conditions, they would not have escaped, as they have done.

A most interesting study. It is to be hoped that Mr. Rutherford, having the opportunity to investigate the propagation and cure of tuberculosis among the lower animals, will have control

experiments made in tested animals, kept under varying stable conditions—good, bad and indifferent—and the results tabulated for comparison with animals kept in the open air. J. J. C.

Editorial

WHY IS THE IMMIGRATION ACT NOT ENFORCED?

AGAIN, a few days ago, the laxity of enforcement of the Immigration Act was brought to the notice of the public, the case being that of a young man who died in the ambulance en route from the House of Industry to the General Hospital, the post-mortem showing a very advanced state of tuberculosis. Deceased had been a year or less in this country. The pertinent question presents itself: How did he gain admission at the border? The law dealing with this subject is very clear, apparently, and without loopholes. We quote as follows from one or two of the sections of the Immigration Act:

Section 27 of the Immigration Act, being Chapter 93, R.S.C., provides that: "An immigrant shall not be admitted to land in Canada who is afflicted with a loathsome disease or with a disease which is contagious or infectious or which may become dangerous to the public health or widely disseminated, whether such immigrant intends to settle in Canada or to pass through Canada to settle in some other country, unless the disease is curable within a reasonably short time."

Section 33, as amended by Section 2 of Chapter 19, R.S.C., 1907, provides as follows: "Whenever in Canada an immigrant has within two years of his landing in Canada become a public charge, or an inmate of a hospital or other charitable institution, it shall be the duty of the Secretary of the Municipality to forthwith notify the Minister, giving full particulars. On receipt of such information the Minister may, in his discretion, after investigating the facts, order the deportation of such immigrant at the costs and charges of such immigrant if he is able to pay, and if not, then at the cost of the Municipality wherein he has been last regularly resident, if so ordered by the Minister, and every immigrant deported under this Section shall be carried by the same transportation Company or Companies which brought him into Canada to the Port from which he came to Canada

without receiving the usual payment for such carriage, and in case he was brought into Canada by a Railway Company, such Company shall similarly convey him or secure his conveyance from the Municipality or locality whence he is to be deported to the country whence he was brought."

By Section 21 provision is made for the hours at which Medical Inspection of passengers shall be performed, namely, at the hours named in the regulations made by the Minister.

By Section 22 it is provided that the Immigration Agents shall provide suitable facilities for the examination of immigrants at each point of entry.

By Section 23 it is provided that the Medical Health Officer shall, after inspection, mark the steamship ticket or railway ticket or passport of each passenger who has passed the Medical Inspection, and the Immigration Agent shall detain any passenger who has been inspected and not admitted, and shall be responsible for the safe keeping of the person so detained.

The medical societies, public health officers, philanthropic and other associations, public press, Church, even to the crowned heads of Europe and the uncrowned heads of the Grand Republics, have all joined forces to try and stamp out the *Great White Plague.* It would seem as if every preventative measure that could be thought of was enforced, with so many to command and direct, and yet cases are frequently cropping up where the most unpardonable laxity has been permitted to pass unpunished. Canada has much to offer to the strong, capable and brave; but its welcome is not to be misunderstood; it is not to be mistaken for a sanitarium or a cemetery, still less for a garbage pail for England, Ireland and Scotland to dump their diseased, incapable, demented and drunken overflow.

Robert Service's clarion words of the Great Northland embody magnificently the whole message of "Our Lady of the Snows." Let the Motherland listen and heed:

"Send not your foolish and feeble; send me your strong and your sane:
Strong for the red rage of battle; sane, for I harry them sore.
Send me men girt for the combat, men who are grit to the core;
Swift as the panther in triumph, fierce as the bear in defeat,
Sired of a bulldog parent, steeled in the furnace heat.

Send me the best of your breeding, lend me your chosen ones;
Them will I take to my bosom, them will I call my sons;
Them will I gild with my treasure, them will I glut with my meat;
But the others—the misfits, the failures—I trample them under my feet.
Dissolute, damned and despairful, crippled and palsied and slain,
Ye would send me the spawn of your gutters—Go! take back your spawn again!"

W. A. Y.

VACCINATION AGAIN.

We quote with pleasure a very interesting and concisely written editorial from the *News* of March 9th:

"The organizer of the National Anti-Vaccination League of Great Britain, who visited Toronto the other day, proclaims lymph to be a snare and sore arms a delusion, so far as protection against smallpox is concerned. But the vast majority of people are persuaded that the ravages of a loathsome disease have been checked by Jenner's discovery. Within a few days the Kingston Board of Health has resigned office in protest against the City Council's repeal of the compulsory vaccination by-law.

"Dr. Alexander C. Abbott, chief of the Bureau of Health of Philadelphia, maintains that isolation hospitals and vaccine are the two available weapons against smallpox. He regards the latter as the most effective in driving the disease out of a community and preventing its reappearance. The Philadelphia Bureau pays particular attention to systematic vaccination. Dr. Abbott has seen only six or seven "bad arms" in 324,816 vaccinations which have come under his notice, and these were affected by dirt after infection. He has heard of only one death from vaccination. Investigation showed that the child had a rhinitis when vaccinated, and septic pneumonia when it died.

"Smallpox appeared in Europe in the fifteenth century, and its ravages rapidly extended until the eighteenth. Forty-five thousand victims died in Great Britain every year, 40,000 in Prussia, and 150,000 in France. The pest is said to have carried off

2,000,000 Russians in a single twelvemonth. Catlin attributes the death of 6,000,000 American Indians to the disease. It is maintained that prior to the vaccination era only a small proportion of the people escaped its ravages. Up to that time all but five per cent. of the adult population were survivors from attacks of the disease.

"Within the hundred years since vaccine began to be used we have seen a universal plague reduced to the proportions of an occasional epidemic. The opponents of vaccination attribute the decline to the improvement in sanitary conditions, but such conditions have exerted no similar influence over the mortality from measles, scarlet fever and whooping cough.

"Smallpox increases with the neglect of vaccination. Physicians maintain that universal infant vaccination, and its logical complement, the universal re-vaccination of adults, would exterminate the disease. Germany, where vaccination is insisted upon, had only 287 deaths from smallpox in five years, as compared with 23,000 in Spain; 12,000 in Hungary; 11,000 in Austria and Italy, and 275,000 in Russia. It is further asserted that so long as the person vaccinated is normally healthy, so long as pure calf vaccine is employed, the rules of cleanliness observed, and the scab properly guarded, no dangerous consequences need be feared."

One great step in the right direction was made when by the untiring efforts of certain elect ladies of our city (we understand), regular and special Medical Inspectors were appointed to look constantly after the pupils in our public schools. *Compulsory vaccination must be enforced,* and all the Anti-Vaccinationists on our Board of Education ought to be examined carefully and operated on, and the growth removed that makes them nothing short of crazy on this one subject. Otherwise, they are, no doubt, sane and estimable citizens. The children *must be protected.* Let the Sunday School superintendents and teachers take this up and refuse to give prizes or to allow Santa Claus to give a thing off the Xmas tree to a child who has not been vaccinated. We do not want rows of small pock-marked faces looking out at us, though their sweet little voices sing, "I want to be an angel." They would not look dressy, even with wings. W. A. Y.

EDITORIAL NOTES.

Epilepsy Caused by Alcohol.—A large group of convulsive seizures, allied to epilepsy, are due to a toxic agent, as in lead poisoning or uremia. Severe epileptic convulsions also occur in steady drinkers. Kovalefsky, a Russian physician, shows that wine drinking may produce epilepsy. He says: "Caucasus is a country of grape and wine making. The drinking water from the mountain rivers is bad, but the wine is good. The natives of Caucasus quench their thirst not with water but with wine, and the wine is no light one. It contains from five to fifteen per cent. of alcohol. Wine drinking is so common that no one considers it inebriety. Everybody knows what a high percentage of epilepsy is caused by the abuse of alcoholic beverages. I have spent the summers during the last fifteen years in Caucasus, where I have a medical practice, drawn from a large district, and in no other place have I had so large a proportion of epileptics among my patients." In epileptics, the post-epileptic symptoms are of importance. The patient may be in a trance-like state, in which he performs actions of which subsequently he has no recollection. Attacks of mania may occur, and the epileptic patient may be dangerous or even homicidal. It is held by good authorities that an outbreak of mania may be substituted for the fit. Should an epileptic, in an attack of mania, wound or kill some person, he is considered to be irresponsible, according to a verdict given after a trial for murder, held recently at London, Ont.

Spiritus Aetheris Nitrosi.—Spirit of nitrous ether is used in medicine for about the same purposes as the solution of ammonium acetate, being particularly serviceable in febrile affections to promote critical sweating. It is frequently given as a diuretic in Bright's disease, congestion of the kidneys, and painful affections of the urinary apparatus. This remedy is also used to quiet nervous agitation, and as an antispasmodic to relieve the pain of dysmenorrhea. It consists essentially of a solution of ethyl nitrite in alcohol. According to the British Pharmacopea freshly prepared spirit of nitrous ether should contain at least 2½ parts by weight of ethyl nitrite in 100 parts by weight of the spirit, and even after it has been kept for some time and the vessel con-

taining it has occasionally been opened, it should yield not less than nearly 2 per cent. by weight of ethyl nitrite or a minimum of 1¾ per cent. The United States Pharmacopea requires 4 per cent. of ethyl nitrite. In Bulletin No. 167, Laboratory of the Inland Revenue Department, Ottawa, Canada, the chief analyst reports upon 77 samples of spirit of nitrous ether collected throughout Canada in October, 1908. The samples are classified as follows:— Genuine, 28; adulterated, 49; total 77.

Thus it appears that 49 of these samples were adulterated, that is to say, contained less than 1.75 per cent. of ethyl nitrite. The chief analyst says: "It is evident that the retail druggist must be held responsible for the proper strength of this article, since it is so liable to lose strength on keeping, especially when the container is frequently opened." As a matter of practical pharmacy it is well to know that nitrites tend to decompose in water with formation of nitrous acid. Thus nitrites may become incompatible with iodides, if iodides are prescribed with spirit of nitrous ether. It is usual in dispensaries to keep a few crystals of potassium bicarb. in the Sp. Ætheris Nitrosi bottle to neutralize any acid formed.

Pure Air Necessary for Health.—Since pure air is proved to be necessary in the successful treatment of tuberculosis, even delicate persons are not quite so easily scared by cold pure air, and window ventilation in winter is obtaining more promotors and advocates. Ventilation in the home depends on ourselves; in street cars, railway carriages, and public buildings, it depends on the management. Public authorities have to take the initiative in enforcing ventilation in public buildings. The Department of Health of Chicago is taking action to have an adequate method of ventilation installed in eighteen five cent theatres in Chicago. Investigations are also being made as to the ventilation of the suburban trains entering Chicago on the various railroads and data for suits are being collected. Suits have already been entered against some of the steam railroads. The Department of Health of Chicago intends to vigorously prosecute these offending public carriers, until some adequate means of ventilation is provided. The effort made by the Department of Health of Chicago to force the steam railroads to install systems of ventilation will be futile, unless they secure legislation making it unlawful to permit overcrowding in passenger

cars. Owing to the extremely small amount of cubic space allotted to each passenger in a filled railway carriage, its ventilation is never adequate, unless the windows are opened. In winter a crowded car becomes, for a time, a veritable "Black Hole," relieved occasionally by the opening of the doors. The Pennsylvania Railway Co. have introduced a system of ventilation into their passenger cars, which is said to work satisfactorily. Doubtless if the Canadian Legislatures pass laws demanding the ventilation of Canadian railway carriages, efforts will be made to imitate the system of ventilation adopted by the Pennsylvania Railway Co. A specification for ventilation should be provided for in the plan of construction of every public building, and no public building should be taken over from the contractors, until its ventilation has been tested and found adequate by official inspectors. The Massachusetts law providing for the ventilation of public buildings should be adopted in Ontario.

The Disinfection and Cleaning of Passenger Cars.—Canadians and Americans are great travellers, and, in their efforts to improve their health and secure happiness, encounter perils by day and by night on the iron way. It is now looked upon as certain by observers of international reputation, that thousands of cases of infectious diseases, without any discoverable source, are due to infections absorbed during railway travel. Upholstered sleeping cars are excellent breeding places for microbes, as they are filled with dust arising from the clothing and baggage of travellers of varying degrees of cleanliness. Dust also forces its way into cars owing to the action of winds. As long as the floors of railway carriages are kept clean during a trip, we do not think a railway company should be held blameworthy for the presence of dust in the carriages. Experiments made to test the presence of microbes in the air of the suburban railway carriages of London, Eng., showed that the percentage of microbes found was trivial in the air near the ceilings, that it increased in the air lower down, and that it was greatest in the air near the floors of the carriages. After a trip of say 300 miles, day coaches and sleeping coaches should be washed, scrubbed, aired and disinfected with formalin. Railway companies are interested in the practice of hygienic rules, to please the travellers; the travellers are interested in them to

save themselves from dangerous risks or illness. Death may lurk in an undisinfected sleeping car, as well as in a spread rail.

Lead as an Abortifacient.—Under the influence of lead, abortion is liable to occur, or the child will be stillborn. These results are thought to be due to a disturbance in the quantity and quality of the blood supply to the affected parts. Writers in the British medical press mention that, in England, diachylon in the form of pills is used as an abortifacient at the present time. Puzzling symptoms traceable to lead poisoning occur in women who have recently miscarried. As patients who have used diachylon for an improper purpose are not frank in their statements to the doctor, the latter has to make the diagnosis of unusual symptoms, after a careful clinical examination. Experience shows that in all cases of lead poisoning from diachylon, in which severe symptoms occur, the blue line on the anterior gums is present, and is often quite distinct. The principal symptoms complained of by patients who had miscarried as the result of the use of diachylon pills were vomiting, attacks of abdominal pain, pain in passing urine and constipation. The patient's expression was anxious and dazed; the complexion sallow and anemic. The treatment employed consisted principally in the administration of magnesium sulphate and opiates. After freedom from colic had been obtained, potassium iodide was given to assist in the elimination of the lead, and subsequently a mixture of Liq. Ferri Perchlor. and Liq. Ammon. Acetatis for the albuminuria and anemia.

Brandy Chocolates.—Evidently the love of alcohol is not confined to men. Recently, March 3, '09, five Toronto confectioners were brought before the police magistrate for selling candies containing a greater percentage of proof spirit than the law allows. Three pleaded guilty and were fined $50 and costs, or three months each, two failed to appear and their cases were remanded for a week. The analysis of the candies bought at the confectioners' stores showed that the confectionery complained of consisted of brandy chocolates and candied fruits soaked in alcohol and then coated with chocolate. Many of them contained as much as 30 per cent. proof spirit. As one of the lawyers remarked: "These spirits can only be sold over the bar."

Independent Prescribing.—The chief hindrance to independent prescribing is the fear of chemical incompatibility. Chemical incompatibility is a very large subject; but any physician who has had a fair training in chemistry ought to be able to steer clear of manifest incompatibility. For instance, in prescribing liquid preparations of iron, he should remember that iron salts are not to be prescribed with anything containing tannin, because tannate of iron is ink. Ordinary iron preparations, such as Liquor Ferri Perchlor. or Tincture Ferri Perchlor. are precipitated by alkalies. Ferri et Am. Cit. and Ferrum Tartaratum are not precipitated by alkalies. A good formula for an iron tonic, which agrees with a dyspeptic stomach, is the following:

R.	Ferri et Am. Cit.	gr. 160
	Spt. Am. Arom.	f ℥ i
	Glycerini	f ℥ ij
	Infus. Calumbæ	ad ℥ xvi
Sig. ℥ss. post cibum in ℥ss. aquæ.		M. Ft. Mist.

Liq. Arsenicalis, being alkaline, should be prescribed with Ferri et Am. Cit. or Ferrum Tartaratum. If it is desired to administer arsenic with Tincture Ferri Perchlor., then Liq. Arsenici Hydrochlor. should be prescribed. Iodides and bromides are compatible with Ferri et Am. Cit. or Ferrum Tartaratum; incompatible with Liq. Ferri Perchlor. or Tincture Ferri Perchlor., as the acid solutions tend to set free iodine or bromine. A knowledge of how to combine in a mixture of one's own making the drugs which are indicated in a given case is a useful accomplishment, for one has to disguise drugs as well as make diagnoses. When a practitioner writes a prescription, he should exercise great care, if he wishes to retain the confidence of the person who has to take the medicine, and the respect of the pharmacist who will prepare it. J. J. C.

Atropine as a Hemostatic.—May we ask any of our readers having on hand any data on this subject to oblige us with the same. They are for the use of a subscriber who intends reading a paper on "Atropine as a Hemostatic" at an approaching medical convention.

PERSONALS.

Dr. E. W. MacBride, of McGill, who has been appointed Professor of Zoology at the Imperial College of Science and Technology, London, will probably leave Montreal at the end of the present session.

We are pleased to be able to report that Dr. H. J. Hamilton, president of the Ontario Medical Association, who recently met with a very painful accident, is recovering nicely and expects to resume work shortly.

The many friends of Dr. Chas. D. Parfitt will hear with pleasure of the purchase of the beautiful private residence, "Minnewaska," near Gravenhurst, as a private sanitarium, and its being opened on March 1st, for the accommodation of Dr. Parfitt's private patients. It will be under the charge of Mrs. Fournier, a Canadian superintendent of nurses, who has for the past ten years or more held important positions in the United States, and now returns to Canada, where she will doubtless make an even greater success of this private hospital than she did of the hospitals where she worked in Ann Arbor and Fort Wayne. This is the first provision in Ontario (outside of the N. S. A.) for non-charity patients having tuberculosis. We wish it success.

The Canadian Medical Exchange, conducted by Dr. Hamill, Medical Broker, for the purchase and sale of medical practices and properties, desires us to state that besides having from fifteen to twenty desirable practices for sale at the present time, he also has requests from over eight different villages without a doctor, where there are most inviting opportunities to work up a practice. These latter openings would suit young doctors, or any medical men who would be satisfied with making about $2,000 per year. Full particulars of the former or latter will be cheerfully given to any physician who cares to write Dr. Hamill, Janes Building, Toronto.

Obituary

DEATH OF DR. GLASGOW.

Lieut.-Col. Glasgow, M.D., is dead, and in his passing one of the best-known figures on the Niagara frontier is gone. Colonel Glasgow was commander of the Second Dragoons. His name was frequently mentioned as a Liberal candidate for the Commons. He was a member of the Ontario Medical Council and former president. Diabetes was the cause of death. He was aged fifty-four.

DEATH OF WILLIAM T. BULL.

William Tillinghast Bull, New York, at the age of sixty, died on February 22nd, of a carcinomatous growth of the neck.

As a young man he did epochal work in the surgery of gunshot wounds of the intestines. This, especially, attracted attention to his ability. It brought to him opportunities that eventuated in the eminent teaching position which, in association with those other masters of surgery, Robert F. Weir and Charles McBurney, he occupied for many years at the New York College of Physicians and Surgeons. His important contributions to appendicitis, hernia and many other subjects, clinical and operative, are too well known to need repeating here.

His unfailing consideration of his colleagues and his modest estimate of his own services won for him a remarkable following in the profession and among the laity, and he was still very active in his practice when his recent illness overtook him.

The loss of Bull, the eminent surgeon and inspiring teacher, is great indeed. But Bull, the man, Bull, the prince of colleagues, will be mourned, and his memory will be cherished until his last patient, his last associate, shall have joined him in the great army of the dead.—*American Journal of Surgery.*

Correspondence.

The Editor cannot hold himself responsible for any views expressed in this Department.

THE ACADEMY OF MEDICINE MILK COMMISSION.

To the Managing Editor, CANADIAN JOURNAL OF MEDICINE AND SURGERY:

Dear Sir,—In this month's number of your JOURNAL, in the editorial concerning the Milk Commission of the Academy of Medicine, Toronto, there are a few inaccuracies to which I would like to call your attention, particularly as my name appears there. Why you single me out for mention any more than the other five members of the Commission, who have worked equally hard with myself, I do not know.

Our requirements, in part, are:

1. That the whole herd shall be tuberculin tested *twice* a year, not *once,* as you mention.

2. That the milk shall contain 4 per cent. butter fat, with an allowed variation of ½ per cent. greater or less than the 4 per cent. The same may be said of the proteids—not a variation of 1 per cent., as you mention.

3. That the maximum acidity shall not exceed .2 per cent., not 2. per cent., as you mention.

4. That the milk must not be heated, neither must it be frozen.

5. That the Veterinary Inspector shall visit the dairies whenever the Commission (not the Inspector, as you mention) desires. The Commission advises that all cows be clipped about udder and abdomen, and that the udder and teats be scrubbed before each milking, not once daily.

You are in error in saying that we have ordered certain tuberculous cows to be slaughtered. We have no authority to issue such an order. We insist, however, that the condemned cows shall be immediately removed from the stable in which are the cows producing certified milk.

It is possible now for us to secure for our infants, invalids, convalescents and young growing children a quality of milk which we can unhesitatingly recommend.

Yours truly,

Henry T. Machell.

95 Bellevue Ave., March 10, 1909.

News of the Month.

CANADIAN MEDICAL ASSOCIATION.

The Forty-second Annual Meeting of the Canadian Medical Association will be held in Winnipeg, Man., on the 23rd, 24th and 25th of August, 1909. Every member is invited to be present and take part in the programme. In order to make arrangements for accommodation, members intending to be present should communicate at an early date with Dr. Harvey Smith, Secretary of Committee of Arrangements, Canada Life Building, Winnipeg. Information with regard to rates, provisional programme, etc., will be sent out in the Annual Circular about July 1st.

The Finance Committee, according to the By-Laws of the Association, Section IV, page 12, have fixed the Annual Fee at $5.00.

THE ONTARIO MEDICAL ASSOCIATION.

The following circular has been sent to the profession recently, giving some interesting details regarding the meeting of the Ontario Medical Association next June.

The Committee on Papers and Business of the Ontario Medical Association wish you to keep in mind the Annual Meeting, which is to be held in Toronto this year on June 1st, 2nd and 3rd. They are very desirous of making this meeting the largest and most successful in the history of the Association. You are particularly requested to endeavor to increase the attendance by inducing both old and new members to come.

The Association will again divide into sections, so that as large a number of papers as is possible can be arranged for. Papers have already been promised by a number of distinguished members of the profession, but the list is not yet complete. If you have any subject upon which you wish to present a paper before the Association, kindly notify the Secretary at once. The titles of all papers must be sent to the Secretary not later than March 1st. All abstracts must be in the Secretary's hands not later than April 15th, in order that copies may be sent to those who may be asked to enter into the discussion.

Time-limit of papers:—The rules of the Association limit the time allowance in sections to fifteen minutes for the reading of any paper. If too lengthy to be read in that time, an abstract may be given.

Each participant in the discussion is allowed five minutes. H. J. Hamilton, President; E. Stanley Ryerson, Secretary, 243 College St., Toronto.

We trust that the profession will attend this year's meeting *en force.*

THE OSLER COLLECTION OF PORTRAITS AND ENGRAVINGS.

In our March issue we unfortunately made an error in stating that Mr. E. B. Osler, M.P., had personally selected the beautiful collection of portraits and engravings which he recently presented to the Academy of Medicine, Toronto. We are given to understand that this is hardly correct, and that the selection itself was made by Professor William Osler, Regius Professor of Medicine at Oxford University, for his brother, who in turn presented them to the Academy.

A NEW HOME FOR TUBERCULOUS PATIENTS.

That beautifully appointed hotel—the Minnewaska—located on the outskirts of the town of Gravenhurst, on the shores of Lake Muskoka, was opened for patients on March 3rd, ult. The Hotel and the Resort need no introduction to Canadians.

The Minnewaska has been purchased by Mrs. E. Gertrude Fournier, a Canadian who has won renown in the nursing profession of the United States. After graduating at the Harper Hospital, Detroit, she was appointed Principal of the Training School, and Matron at the Ann Arbor University Hospital. She gave up that post to become Principal of the Training School, and Superintendent of Hope Hospital, Fort Wayne, Indiana, which post she filled with credit to herself and profit to the Hospital for ten years, resigning in December last. During her residence in Indiana she was for five years President of the State Association of Nurses, and is now a Director of the Association of Superintendents of Training Schools for Nurses, a Director of the Nurses' Associated Alumnae of the United States, as well as a member of the Editorial Board of the *American Journal of Nursing.*

The Minnewaska is well adapted to the care of tuberculous cases. There is a large verandah accommodation overlooking the lake, and many of the rooms have private verandahs. The patients will be under the medical supervision of our old friend, Dr. Chas. D. Parfitt, who needs no introduction to the medical profession in Canada. As is well known, he has for the past eight or ten years been so closely identified with the progress made in the care of tuberculosis, that anything we might say about his ability and skill would be quite superfluous. It should be a com-

fort to the friends of patients, as well as to the patients themselves, to know that there is now a place where such cases may go and be assured of intelligent nursing and proper medical supervision.

VISITING TRAINED NURSES FOR TUBERCULOSIS CASES.

The Board of Trustees of the Muskoka Free Hospital for Consumptives, Gravenhurst, and the Toronto Free Hospital for Consumptives, near Weston, have secured the services of a trained nurse to act as visiting nurse throughout the City of Toronto, visiting homes where members of the family may be found suffering from Tuberculosis.

This nurse, with her special knowledge of the dangers of infection through tuberculosis, will be able to render valuable assistance in preventing the spread of the disease in the home, and will either be able to secure the removal of the patient to one of the Consumptive Hospitals, or in such cases where this is impossible, she would be able to minister to the needs of the patient in furnishing the necessary comforts and required care.

OF GENERAL INTEREST TO THE MEDICAL PROFESSION.

The papers and their discussions before the American Medical Editors' Association at the Chicago meeting last June are not alone of interest to those journalistically associated, but to the profession at large. Many pertinent and important subjects are presented and discussed, of which we would mention:—"Twenty-five Years in Medical Journalism" (President's Address); "Ethics of Commerce"; "The Application of Journalistic Methods to Journalism"; "The Medical Journal from the Standpoint of an Outsider"; "Editorial Individuality"; "Medical Book Reviews"; "Source of Inspiration for Editorials"; "The Human Element in Medical Journalism"; "The Modern Era of Medical Journalism in America. The Twenty-fifth Anniversary of the Establishment of the Journal of the American Medical Association"; "The Functions of the State Association Journal"; "The Future of the Independent Medical Press"; "What Medical Journals can do to Reform Medico-Legal Inquiries"; "Scientific Journal Editorials"; "Non-Scientific or Utilitarian Editorials"; "The Spirit of 1908"; "Relation of the Medical Journals to the Profession and Advertisers." These transactions are in book form, paper cover, and will be sent postpaid upon receipt of 50 cents. Address Secretary American Medical Editors' Association, 92 William Street, New York, U. S. A.

Physician's Library

Hydrotherapy. By Simon Baruch, M.D. Published by Wm. Wood & Co., 51 Fifth Ave., New York. 1908.

Dr. Baruch's Hydrotherapy, third edition, is a fit sign of the progress which hydrotherapy is making towards its rightful position in our therapeutics.

The chapters dealing with Phthisis and Insanity show marked development in hydrotherapy as applied to these conditions. The technique of treatment is here, as in other parts of the book, clearly given, and puts this method of treatment within reach of every physician.

The explanations and facts set forth should convince any physician of the curative value of water when properly and scientifically applied.

For the student the book is invaluable, not only for the ground which is covered, but also for the clear explanation which is given.

For the practitioner, it helps to fill a long-felt want in the profession for an adequate work on hydrotherapy.

The edition of the book reflects great credit on the publishers, Messrs. William Wood and Company, from whom copies may be obtained. D. C. M.

Backbone. Hints for the Prevention of Jelly-Spine Curvature and Mental Squint. A Straight-up Antidote for the Blues and a Straight-ahead Sure Cure for Grouch. Collected from various sources and arranged by S. DeWitt Clough. Ravenswood, Chicago. December, 1908.

Any of our readers who have not as yet procured a copy of Mr. S. DeWitt Clough's book entitled "Backbone" should do so without delay. It is not only clever, but replete with suggestions that can only be useful in one's daily life. In fact, we do not know that we can describe its contents any better than in the words appearing on the title-page, "Hints for the Prevention of Jelly-Spine Curvature and Mental Squint. A Straight-up Antidote for the Blues and a Straight-ahead Sure Cure for Grouch."

One paragraph from "Backbone" struck us as being worthy of repetition. It is entitled "Self-Confidence." "There is one sort of man for whom there is no place in the universe, and that is the wobbler, the man on the fence, who never knows where he stands, who is always slipping about, dreaming, apologizing, never

daring to take a firm stand on anything. Everybody despises him. He is a weakling. Better a thousand times have the reputation of being eccentric, peculiar, and cranky, even, than never to stand for anything." We congratulate the author upon the publication of the book, the sentiment of which is the very best.

W. A. Y.

A Text-Book of Diseases of the Nose and Throat. By D. Braden Kyle, A.M., M.D., Professor of Laryngology and Rhinology, Jefferson Medical College; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes' Hospital; Fellow of the American Laryngological Association, etc. With 219 illustrations, 26 of them in colors. Fourth edition, thoroughly revised and enlarged. Philadelphia and London: W. B. Saunders Company. Canadian agents: J. A. Carveth Co., Ltd., Toronto.

This book has already found a place in the library of nearly all nose and throat specialists, because it contains so many good features not always found in special works. One will not find any "fads" or untried schemes or remedies advocated, but he will find thoroughly explained measures that the author has proved of value. The pathology and treatment in this book is very full, and especially is the latter made so comprehensive that one will find a great variety of remedial measures from which he will be able to select those suitable to any peculiar case. In describing special operations and methods, the author has very wisely given *verbatim* the original articles. Braden Kyle's book will always be resorted to when one is looking for obscure points in managing some difficult case. The general practitioner will secure all the information he wishes, given with a full appreciation of the importance of a consideration of the entire body in cases where symptoms point to diseases of the nose and throat alone. P. G. G.

Wellcome's Photographic Exposure Record and Diary, 1909. Wellcome's Photographic Exposure Record and Diary for 1909, in spite of the apparent perfection of previous editions, contains several new and interesting features.

The article on exposure is remarkable for the large amount of definite information condensed into its 28 pages. This is secured by confining attention to points which are of real importance to the photographer in practice. In fact, the practical nature of the information throughout the book is one of its outstanding features. Obviously, it is compiled by those who know precisely what information the photographer needs in his work, and understand the art of presenting practical information without waste of words.

Two new features of the exposure article are the inclusion of a speed test for over 80 bromide papers and lantern slides. The

list is, we believe, quite unique, and gives information which is not obtainable elsewhere. It will be of great utility to photographers who use more than one make of paper or plate for different purposes or effects, because, when once the correct exposure has been found for any bromide paper or lantern plate in the list, that for any other speed or make can be ascertained at a glance without further trial or waste of material.

A Text-Book of Diseases of Women. By CHARLES B. PENROSE, M.D., formerly professor of gynecology in the University of Pennsylvania. Sixth revised edition. Octavo of 550 pages, with 225 original illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Canadian agent: J. A. Carveth & Co., Limited, Toronto. Cloth, $3.75 net; half morocco, $5.25 net.

The sixth edition of this work bears so close a resemblance to the fifth, in text, illustration, size, etc., that one wonders in what the difference between them consists, and this calls for search. There are differences, for, in gynecology, the last word is never said. A new edition, which appears four years after its predecessor, speaks well for the popularitv of the author with medical students and practitioners. Dr. Penrose is a safe teacher. His practice of advising but one method of treatment for each disease he describes is helpful to the student. J. J. C.

A Reference Handbook for Nurses. By AMANDA K. BECK, Graduate of the Illinois Training School for Nurses. Second edition, revised and enlarged. 32mo. of 200 pages. Philadelphia and London: W. B. Saunders Company, 1908. Flexible leather, $1.25 net. Philadelphia and London: W. B. Saunders Company. Agents for Canada: J. A. Carveth & Co., Limited, Toronto.

After glancing through the second edition of Miss Amanda K. Beck's "Reference Handbook for Nurses" we feel that we can honestly congratulate her upon her work. The second edition shows careful revision, and a good deal of new material has been added. The new material consists of somewhat lengthy additions to the chapter on "Weights and Measures" and also to that on "Solutions." A very practical chapter is also to be found on "Toothache and its Treatment," something that will be found by the readers of this book as very useful. The illustrations are also fairly good, though it might have been better had they partaken of the nature of half-tones. The diagrams of the fetal circulation and the eruption of the teeth are quite creditable, and, altogether, we think that nurses will find this book exceedingly useful in their work. W. A. Y.

The Urine and Clinical Chemistry of the Gastric Contents, the Common Poisons, and Milk. By J. E. HOLLAND, M.D., Professor of Medical Chemistry and Toxicology, Jefferson Medical College of Philadelphia. Forty illustrations. Eighth edition, revised and enlarged. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1909.

After glancing over Dr. Holland's little book, we can certainly recommend it to practitioners in general. It will be found, of course, to be of greatest value to those taking a special interest in clinical chemistry; but it contains a great deal of information that will be found useful to all. The book is inexpensive and certainly worth the price charged.

A Reference Handbook of Gynecology for Nurses. By CATHARINE MACFARLANE, M.D., Gynecologist to the Woman's Hospital, Philadelphia. 32mo. of 150 pages, with original line-drawings. Flexible leather, $1.25 net. Philadelphia and London: W. B. Saunders Company. Agents for Canada: J. A. Carveth & Co., Limited, Toronto.

Dr. Catharine Macfarlane's Handbook of Gynecology should prove of very practical benefit to members of her profession. Her book is a small one, but will be found very handy to nurses, as it can be carried around in the pocket. The work is a result of a series of lectures on Gynecology delivered by the author to the nurses of the Women's Hospital, Philadelphia. The author gives in detail the preparation for operation, operative technique and post-operative treatment as followed by her chief, Dr. Caroline N. Purnell. We can recommend the book to members of the nursing profession, the price being very reasonable, but $1.25 net per copy. W. A. Y.

A Text-Book of General Bacteriology. By EDWIN O. JORDAN, Ph.D., Professor of Bacteriology in the University of Chicago, and in Rush Medical College. Octavo of 557 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, $3 net. Agents for Canada: J. A. Carveth & Co., Limited, Toronto.

As a result of a course of lectures delivered to the students in the University of Chicago, this text-book was written. It treats of the subject in a general way, not being intended for the advanced worker. Yet it is quite full enough for the medical student or for those in search of general scientific knowledge. There is a useful and interesting article on the bacteriology of milk and milk products, also one on bacteria in the arts and industries. An appendix has been added which treats of infectious diseases of un-

known causation, as small-pox, rabies, scarlet fever, etc. The illustrations are numerous and clear. W. H. P.

The Cure of Rupture by Paraffin Injections. By Charles C. Miller, M.D. Comprising a description of a method of treatment destined to occupy an important place as a cure for rupture owing to the extreme simplicity of the technic and its advantages from an economic standpoint. Chicago: Oak Printing Co., 9 Wendell Street. 1908.

This small book, from the pen of Dr. Chas. C. Miller, and which recently reached our desk, is worth reading. It consists of several chapters regarding the treatment of hernia by the injection method. One short chapter deals with "Operation without anesthesia a great advantage," the other chapters dealing with the preparation of the skin before operation, the preparation of the hands of the operator, the preparation of the syringe, the preparation of the paraffin, the posture of the patient for the injection, the effect of paraffin compounds upon the tissues, the immediate after-effects of paraffin injection, the precaution to be used to prevent throwing the paraffin into the circulation, factors to be considered in dealing with inguinal hernia, as well as other chapters of similar interest. Dr. Miller's book is worthy of perusal. W. A. Y.

Oxford Medical Annuals. Diseases of the Eye. By M. Stephen Mayor, F.R.C.S., Assistant Surgeon and Pathologist, Central London Ophthalmic Hospital. 119 original illustrations. Henry Frowde, Oxford University Press. Toronto: D. T. McAinsh & Co. $1.50.

This is essentially a student's book. Handy in size and shape, good type on good paper, it will appeal to him. For a book of its size it is strong in pathology. The inflammations of the conjunctiva are dealt with upon a bacteriological classification. The author is to be congratulated on the good judgment he has shown both in what he has left out and what he has put in. He evidently has an excellent idea of what the undergraduate medical student should know about the eye and its diseases. J. M.

Blood Examination in Surgical Diagnosis. By Ira S. Wile, M.D. New York: Surgery Publishing Co. 1908.

This is a most useful and complete volume of 161 pages treating on the diagnostic and prognostic values of blood examinations, particularly in surgical conditions. The chapters dealing with the technique of the various examinations is clearly written, is concise, and fulfils the requirements of students and practitioners alike. Jenner's method of staining is advocated, and the colored

plate corresponds with the descriptions in the text. The interpretation of the differential count of leucocytes is most carefully discussed, and its value in prognosis in various surgical conditions, septic and otherwise, clearly shown. In this connection as elsewhere the importance of correlating clinical history with laboratory findings is emphasized. The latter half of the book is given to consideration of the blood in various special conditions. A most helpful chapter is given to observations in obstetrical and gynecological practice, and other chapters deal quite as thoroughly with the value of blood examination in syphilis, differentiation of bone and joint diseases, malignant disease and many other pathological states. The black and white drawings are well made and clearly illustrate the structures described. The book does not in any sense replace the more general treatises on laboratory methods in diagnosis, but furnishes much information not found in such works. M. H. V. C.

Oxford Medical Publications. Selections from the writings, medical and neurological, of Sir William Broadbent, Bart., K.C.V.O., Commander of the Legion of Honor, M.D., F.R.C.P., F.R.S.; D.Sc., Leeds; LL.D., Edinburgh, St. Andrews, and Toronto; late Physician in Ordinary to H.M. the King, and to H.R.H. the Prince of Wales, and Physician Extraordinary to H.M. Queen Victoria; late Physician to St. Mary's Hospital, and to the London Fever Hospital; Past President of the Clinical, Medical, Neurological and Harveian Societies; President of the British Medical Benevolent Fund; First President of the Entente Cordiale Medicale; First Chairman of the Council of the National Society for the Prevention of Consumption. Edited by Walter Broadbent, M.D., M.R.C.P. London: Henry Frowde, Oxford University Press; Hodder & Stoughton, Warwick Square, E.C. Toronto: D. T. McAinsh & Co. 1908.

These selections from the writing of Sir William Broadbent do not include any of those used as the basis of his books on "The Pulse and Heart Disease." They do contain, however, his last completed paper on "The Examination of the Heart."

The name of Sir William Broadbent is so well known to every medical man of the present day in almost every part of the civilized world that this book needs little if any recommendation. The papers that it contains are of an excessively interesting character, being, in most cases, parts of clinical lectures or of papers written for journals, and make together a book that can be at any time taken up and read with interest and with advantage, and, it may also be said, with pleasure by every general practitioner. The book is nicely got up, print is large and clear and

easily read, and the papers are not so long but that the busy practitioner can read them in his leisure moments. It is a book that is full of the most valuable hints to the medical practitioner, valuable because we have them grouped together here in a number of short, pleasantly-written papers; and doubly valuable because these hints are given where they can be most appreciated, viz., where they explain obscure parts of the clinical pictures.

A. J. J.

Seven Hundred Surgical Suggestions. Practical Brevities in Surgical Diagnosis and Treatment. By WALTER M. BRICKNER, B.S., M.D., Assistant Adjunct Surgeon, Mount Sinai Hospital, New York; Editor-in-chief, *Americal Journal of Surgery;* ELI MOSCHCOWITZ, A.B., M.D., Assistant Physician Mount Sinai Hospital Dispensary, New York, and HAROLD M. HAYS, M.A., M.D. Third Series. Duodecimo; 153 pages. New York: Surgery Publishing Co., 92 William St. Price, semi-de-luxe, $1.00; full library de luxe, ooze leather, gold edges, $2.25.

The evident intention of the publishers of this book is, that we should begin the review already prepared for us by stating that "this volume is literally packed full of useful and valuable information for the general practitioner and surgeon." Perhaps the fact that it is packed so full makes it decidedly dry reading. We remember once picking up a book entitled, "Five Hundred Jokes," and upon sitting down to enjoy some of the five hundred we found it the tamest and driest stuff we had read for many a long time. While, no doubt, there are many useful hints among the seven hundred surgical suggestions, yet to our way of thinking it is not a class of literature that tends to the uplifting of the medical profession.

F. N. G. S.

The History of the House of Merck.—We were recently favored with a copy of an illustrated pamphlet from E. Merck, Darmstadt, Germany. It gives a history of The House of Merck, which has existed in all for two hundred and forty years. "The connection of the name of Merck with chemistry dates back to August 26th, 1668, when Friedrich Johann Merck entered into possession of The Engelapotheke in Darmstadt and was granted the right to exercise his profession by the then reigning Landgrave, Ludwig VI. of Hesse." The pamphlet is freely illustrated with half-tone illustrations of the works, and is most interesting and instructive.

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Original Contributions.

ANEURYSM OF THE THORACIC AORTA

BY ALEXANDER M'PHEDRAN, M.B.
Professor of Medicine, etc., University of Toronto,
and
WILLIS S. LEMON, M.B.
Muskoka Cottage Sanitarium, Gravenhurst

THE following case of aneurysm is of much interest. The patient came under observation in October, 1908, and the following history was obtained by Dr. Lemon:

Mrs. F., aged about 50, a widow, complained of severe pains from a large pulsating tumor in the upper part of the chest.

Her mother died at 77 from pneumonia. Her father is living and well, aged 83. A brother died in childhood. Has one sister living and well, aged 42 years. Her husband died at 51 years of age, from "athlete's" heart, after an illness of ten weeks.

Children: Miscarriage three, two of which were early in married life, and the other nineteen years ago, her last pregnancy. Full time children seven, four of whom are living and well. One child died at two months, cause unknown. Two died one day after birth, and one at the age of six years from meningitis.

There is no history of gout, rheumatism, or tuberculosis, and the children have in no case suffered from rashes, disease of the nasal mucous membrane, or anything indicating the existence of syphilis.

Mrs. F. had been a strong and healthy girl and woman,

doing ordinary housework until seven years ago. Then, after some heavy lifting, she began having fainting spells which would last about two hours each time, but unaccompanied by pain or suffering. These attacks were preceded by dizziness. A little later, pain, constant and boring in character, began behind the left shoulder, and for which no cause could be assigned. A diagnosis of rheumatism was made and the patient kept in bed for nine months.

Five years ago Roentgen rays revealed the signs of an aneurysm of the descending aorta. She was kept in bed for five months. The pain soon ceased.

Three years ago an enlargement about the size of a hickory nut appeared in front to the right of middle line. It grew very

FIG. I.

slowly for nearly two years, but has developed rapidly the last year. There has not been much pain during these years, although she has been attending to her household duties. About October 1st, 1908, she noticed some redness over the most prominent part of the enlargement, and the linen became stained with oozing of reddish serum. During the third week of October pain began suddenly again and caused her to keep her bed; the oozing was constant.

On October 24th the pain was severe, and a slight persistent bleeding occurred from the centre of a dark red area on the most prominent part of the enlargement. From this time until October 29th the condition remained much the same, except that the area of redness increased steadily in size, and the oozing increased slowly in quantity. Then a small hemorrhage occurred.

On October 30th a very great hemorrhage took place in the morning, and was accompanied by great pain. Although the

hemorrhage was controlled the patient became gradually weaker and died on the morning of the next day.

A partial autopsy was granted, and the following condition was found:

The tumor was found to be an aneurysm of the arch of the aorta. It had eroded the ribs and sternum, and projected transversely across the front of the chest in an upward direction from right to left, measuring about ten inches in length and four inches in width. It projected forward about four inches to the left of the sternum.

At the summit and in the centre of the reddened area a large

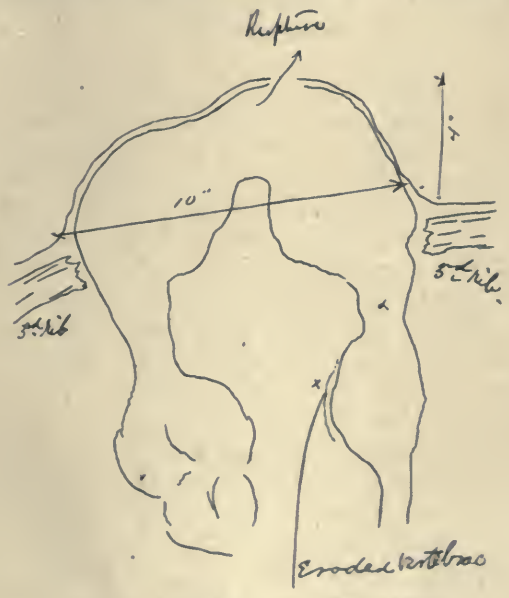

FIG. II. DIAGRAM OF ANEURYSM.

opening admitting the finger was found; through this the bleeding had taken place. Through this opening could be felt the eroded edges of the sternum, above and below, and at either side those of the costal cartilages.

Some difficulty was experienced in freeing the tumor, as it extended upwards behind the manubrium sterni. In the descending aorta was found another enlargement in the artery. It was very hard to the touch, and lay on the body of the fourth vertebra. Below this the artery was normal in size.

On removal of the whole mass, the lower part of the body of the third vertebra, the whole of the body of the fourth vertebra, and the upper part of the body of the fifth vertebra, were found to be eroded but smooth. A like condition was found on the an-

terior surface of the transverse process of the fourth dorsal vertebra, and of the rib. This aneurysm evidently caused the pain which began seven years ago, and was the one discovered two years later by means of the Roentgen rays.

On dissection this aneurysm was found to be channelled, the walls being formed by a hard mass of fibrinous and calcareous material. The second and largest aneurysm partially divided into two was in the ascending and transverse parts of the arch of the aorta. From this one the hemorrhage came. It was filled with a soft fibrinous deposit, and the blood channel through it was very tortuous. At the most prominent part the fibrine was dense and laminated. Around the opening through which the bleeding took place the deposit was firm.

REMARKS BY DR. M'PHEDRAN.

This case emphasizes the importance of persistent localized pain as a symptom of aneurysm of the descending thoracic aorta. This part of the aorta is fairly firmly attached to the spine, with the result that any enlargement of it will press upon the bodies of the vertebra and cause pain varying with the degree of pressure. Therefore, the pain is usually more severe when the blood pressure is increased. The irritation about the aneurysmal dilatation usually causes slight inflammatory exudate, which in time extends to the roots of the adjacent intercostal nerves and irritates them, causing pain which radiates along the nerves to their terminals, so that the pain is felt in all their cutaneous branches. It is for this reason that persistent pain along the course of one or two intercostal nerves becomes so significant of the existence of aneurysm. I have not met with such localized pain in any one past middle life, apart from other symptoms as *e.g.* tabes dorsalis which was not due to that cause. Undoubtedly it is possible for the pain to be excited by other causes, such as caries of one or more vertebra, a tumor or inflammation near the roots of the intercostal nerves. Two cases may be cited in illustration. Both were men over 60 years of age. In one the pain was in the course of the fourth intercostal nerve on the right side. The pain varied, but was seldom wholly absent. It was increased by worry, over-exertion and excitement. He was over-worked by the cares of a large business, and consequently somewhat neurasthenic. There was a slight deflection of a spinous process, but no signs of local disease of the vertebra. From the persistence of the pain, its aggravation by increase of blood pressure, and the absence of signs of other local disease aneurysm of the aorta was regarded as the probable cause. In Europe, whither he went for rest and advice, spinal caries was thought to be the trouble, and a brace was adjusted to

partially immobilize the spine. It was soon discarded as it increased the discomfort. A few months later sudden faintness occurred but he revived and passed a comfortable night. Although absolute quiet was enjoined, next day he went to the closet and on returning to the bed he suddenly collapsed, and died in a few minutes. There was not an autopsy but the symptoms all point to slight rupture of an aneurysm the day before death, with on the following day increase of the opening and free hemorrhage from which he died.

In the second case the pain was in the course of the fifth and sixth left intercostal nerves. The man was highly neurotic and had fairly marked gastric-hyperacidity, to which the pain was attributed at first. Rest and antacids relieved the pain but it recurred on exertion. On this account aneurysm was suspected. Later he sought advice at an American hospital, where he was greatly improved by two months' rest in bed. The condition was regarded as neurasthenic with hyperacidity, and a favorable prognosis given. After leaving the hospital the pain soon returned. The same diagnosis was given at an hospital in Europe and an encouraging prognosis given. The relief was this time of short duration and his condition grew steadily worse. A few months later a large tumor appeared in the left axillary region, the signs of which left no doubt of its aneurysmal nature. He died about two years after the true cause of the pain was suspected.

The histories in these three cases are identical so far as the character and persistence of the pain is concerned. The duration in the woman's case is much longer because the aneurysm causing the pain was practically cured by the formation of firm deposit in its walls. The pain ceased because the aneurysm not only ceased to enlarge but contracted slowly, and the pressure on the vertebrae and the nerves was relieved. It was apparently a cured aneurysm. Had not the aneurysm formed on the ascending and transverse portions of the arch, she might possibly have lived in comfort many years.

That pain in an intercostal nerve may occur, and be of long duration, without apparent cause, in younger persons, is undoubted. Such a condition is at present under observation in a young woman, aged 22. She has had pain in the right third intercostal nerve for several years. The pain is persistent, and subject to severe paroxysms, but is often so slight that she is not conscious of it. There is tenderness along the course of the nerve to its termination at the sternum, the points of chief tenderness being under the inner border of the scapula. The Roentgen rays show no cause for the pain, so that the diagnosis remains uncertain.

THE CLARIFICATION OF OUR CONCEPTS CONCERNING HYSTERIA

TOM A. WILLIAMS, M.B., C.M. (EDIN.) WASHINGTON, D.C.

THE recent discussion at the Paris Neurological Society[1] has done much to give precision to the vague conception so unfortunately attached to the word hysteria. It was in 1901 that the Society, after hearing the astonishing definition of Babinski,[2] began the inquiry which has fructified in the conclusions which now emerge after the elimination of poorly observed cases, clouded reasoning and ill-digested theories.

The suggestions at the root of the symptoms of hysteria, formerly believed to be autochthonous and durable, and termed stigmata, are generally, though not always, of medical origin. It is very significant that Bernheim[3] for fifteen and Babinski[4] for ten years have never seen hemianesthesia, contracted visual fields, dyscromatopsia, monocular polyopia, except in patients previously examined medically. The mode of genesis of these symptoms was first indicated by Bernheim[5]; and the writer has recently presented the theme in a translation of his communication before the congress of French neurologists at Lille.[6] Medico-legal examples in the making have recently been adduced by Brissaud,[7] as, for instance, that where Dupinet, who had found no hemianesthesia in a workman after an accident, saw it produced by the examination of another expert. It is impossible, however, to prove a universal negative; and to that extent Déjérine and Raymond are justified in believing that undoubted hysterical symptoms may arise independently of suggestion. But it must be remembered that hemiplegia of organic origin is a familiar sight, and that to the lay mind palsy connotes insensibility. Hence it is not astonishing that a man who believes a limb incapacitated, believes it also insensitive; this, however is a suggestion. The discovery of basal suggestions in hysteria is proportional to skill in psychoanalysis in genuine cases, and to detective shrewdness in cases arising from mythomania.[8]

Many so-called hystericals are in reality merely mystifiers, more or less conscious of their deviation from straightforward action. The following cases are examples:

A young girl[9] announced that on a certain day and hour she would die. When the time came she feigned death, resisting with astonishing fortitude all the stimuli used to awaken her from her apparent state of catalepsy or coma. This comedy lasted three days; then she arose and dressed herself, pretending to come out of a dream, and amused herself with the stupefaction of her fam-

ily and friends. When interrogated by her doctor, she confessed her trick, and said that she had never been so happy as she was while watching the efforts, threats and prayers of those around her. In spite of the confession, the same scene, more or less varied, ocurred on ten other occasions, although she appeared to be a young woman of good heart and intelligence.

A second case is that of a man in hospital who confessed to concealing a hypodermic syringe in his rectum; and this was not all, for in a moment of exasperation an evacuation revealed two.[10]

Such cases have largely contributed to the confusion of our concept of hysteria. They must be eliminated from a discussion of its nature. So also must be excluded abnormalities of the tendon, skin, and pupil reflexes, which are not modifiable by suggestion.

Urticaria, dermatographia, eruptions, edema, hemorrhages,[11] ulcers, gangrene, and other circulatory or trophic perturbations,[10a] arise from chemical or structural abnormalities, whether in suggestible individuals or not, and have nothing to do with hysteria; nor is the temperature modifiable by suggestion; and the urinary, sudoriferous, and salivary secretions[12] are so only slightly, rarely, and in so far as the emotional attitude may be perturbed by a suggestion.[11]

The foregoing assertions must not be misinterpreted; for it must be remembered that the tendon reflexes may be suppressed by voluntary muscular contraction; and the cutaneous reflexes, such as tickling, may be inhibited by a strong effort of the will.

It must not be forgotten that many intoxicated states which paralyze the neurones which govern the reflexes also necessarily interfere with the psyche, and give rise among other symptoms to many of hysterical type. This by no means means the modification of reflexes by the hysterical symptoms; both are effects of a common cause; either may occur independently in accordance with the preponderance of the intoxication upon one or other part of the nervous system.

Many maintain that other psychoneuroses than hysteria are amenable to suggestion, Déjérine, for example, citing the false gastropaths, whom he calls neurasthenics. The writer has elsewhere[14] endeavored to elucidate this source of error, and shows how a false belief in one's inability to digest, whether implanted by medical suggestion or other (*i.e.*, a hysterical fixed idea), produces asthenia by slow starvation, and also malassimilation caused by the worry of food eaten under fear that it may disagree. The state induced is a secondary neurasthenia, and of course demands the Weir-Mitchell treatment; but the initial cause, the false idea, must be removed by psychotherapy, and until so removed may again cause failure of nutrition.

Patients suffering from mental debility, dream-like states, mental confusion, states of emotional perversion, etc., in so far as they are suggestible, are hystericals; but their whole syndrome cannot be removed by suggestion, as can cases of uncomplicated hysteria. For the differential characters of such states, I must again refer the reader elsewhere.[16]

The victims of what has variously been called cerebral neurasthenia, ideo-obsessive psychosis, *maladie de doute, délire de toucher*, and, latterly, psychasthenia, are the antitheses of the hysterical, though many of their symptoms may be imitated by suggestion, and so removed. The essential psychasthenic characters, however, do not accompany a symptom simulated in this way. I cannot better contrast these characters than in the following extract from *International Clinics*:[14]

"The very important diagnosis between hysteria and psychasthenia depends upon the following: Firstly, as to fixed ideas, their duration in hysteria tends to be long; for though they are easily buried and forgotten, they are to be resuscitated with great ease and infallibility, whereas in the psychasthenic the fixed ideas are very mobile, but keep recurring voluntarily, and indeed become cherished parts of the individual, and are far more difficult to eradicate than those of the hysteric. Secondly, hysterical ideas are evoked by well defined and not numerous associations, 'suggestions'; in the psychasthenic they are often evoked by apparently irrelevant associations, which are searched for by the patient: thus the '*points de repère*' are very numerous, cannot be predicted with certainty, and are often mere excuses for crises of rumination or tics. Thirdly, in the hysteric, the ideas tend to become kinetic; whereas the psychasthenic's constant state of uncertainty causes him to oscillate between 'I would' and 'I would not.' Inhibition is too strong to allow an act, but not strong enough to dismiss the obsession."

The anorexia in hysterics derives from a simple idea not to eat, suggested by imitation, extraneously or in a dream. Cases of true loss of the feeling of hunger are not hysterical, but accord with the "anorexia mentale" of Lesègue,[15] in whose days hysteria was ill differentiated. The anorexia of the psychasthenic is secondary to an obsession, usually of shame of body, of being fat, or of the act of eating, and is accompanied by numerous stigmata of the psychasthenic state.[16]

It must, however, be remembered that the neurasthenic state favors suggestibility, though it is not of the dynamic kind which the hysterical manifests, but is of a passive, aboulic character.

From the foregoing considerations it follows: (1) That from hysteria must be eliminated cases of trickery, simulation, and mythomania; (2) that to the syndrome of hysteria do not belong

modifications of the reflectivity; (3) that the vaso-motor and trophic neuroses have nothing to do with hysteria; (4) that other psychoneurotic states—such as psychasthenia, neurasthenia, cenesthopathia, mental debility and confusion, the early phases of dementia precox, dreamlike states, emotional perversions—must not be confounded with hysteria.

Having eliminated these negative characters, there remain the very definite conclusions which I quote again from *International Clinics.*[17]

"1. That all the symptoms which may legitimately be included under hysteria are imposed by suggestion.

"2. That the state of suggestibility derives from:

"(*a*) Faulty education, tending to perpetuate and fortify the natural suggestibility of the child.

"(*b*) Cerebral modifications due to organic causes, the action of which necessarily varies among individuals in accordance with

"(*c*) The hereditary constitution."

For clarification of the issue we are indebted to Babinski and the discussions which his pertinacity has inspired in the Paris Neurological Society; and for a full account of the data, the reader is referred to the reports of these.[18]

Space forbids even a statement of the therapeutic and medico-legal corollaries of these conclusions. The latter were alluded to in the *Monthly Encyclopedia* of November last.[19] The former should clarify our understanding of much of the pseudo-scientific psychotherapy now becoming so rampant.

A clear conception of the psychological mechanism of hysteria will add enormously to the power of medical men in controlling the psychoneurotic element present in so many diseased conditions.

The hit-or-miss psychotherapy-of-encouragement in many cases does more harm than good. It is as dangerous therapeutically as digitalis or the knife in hands ignorant of pathology. The delicate judgments upon which the treatment depends certainly cannot be entrusted to the untrained. However subtle-witted may be a pedagogue, priest, or mental healer, he lacks the broad training in the fundamentals of clinical medicine in which unfortunately some men who specialize too early in their career are also deficient. Accordingly, the therapy of hysteria, as well as of the other psychoneuroses, can be entrusted with safety only to the physician; and he in turn must rise to the occasion by studying the pathogenesis of these as he now does that of arterio-sclerosis or glandular insufficiency. In the meanwhile, he must have recourse for advice, and sometimes for direction, to the few men who have already devoted themselves to this study.

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Selected Articles.

REMINISCENCES OF TWO OF TORONTO'S PRINCIPAL MEDICAL MEN IN THE EARLY YEARS OF THE CITY'S HISTORY.

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EVERYWHERE in civilized countries, prominent members of the medical profession have in the past, and are now, playing an important part in making current history. It therefore appeared to me that this résumé would be most interesting to the readers of this JOURNAL were I to select from my address the portion which dealt with two of the most prominent Toronto medical men of a bygone generation. I can give but briefly, in a single paper, the story of two such lives as I have selected, and have had to rest satisfied with such facts as I could gather as might prove interesting to your readers in the medical profession of Ontario. I give first a sketch of Dr. Christopher Widmer, for a great number of years Toronto's principal medical man. He was born at High Wycombe, Buckinghamshire, England, May 15th, 1780. He entered the medical profession early in life, having passed his examination for his M.R.C.S. (Eng.) in 1803, only three years after the Royal College of Surgeons was founded. He soon became a distinguished surgeon and afterwards obtained the highest standing conferred by the Royal College of Surgeons, England, its Fellowship. He joined the army and became staff surgeon, attached to the 14th Light Dragoons, and in 1812, during the last war between Great Britain and the United States, came to Canada with his regiment. As the war was of brief duration, Dr. Widmer decided to remain in Canada, and settled in Toronto to practise his profession. His skill as a surgeon soon made his name famous over the whole Province of Upper Canada (now Ontario). His experience as a surgeon in Spain during the Peninsular War was very great. He wore a medal with five clasps, each of which bore testimony to his presence at a hard-fought battle—between the British army, under the Duke of Wellington, and the French army, under one or other of the famous marshals selected by the French Emperor Napoleon the First, whose genius in the conduct of war was incredibly great, so much so, that but for the wonderful valor, the intense pertinacity, and the mar-

vellous skill of the Duke of Wellington and the able generals under him, in command of the best and bravest of soldiers, he would have laid the whole of Europe helpless at his feet.

The battles at which Dr. Widmer was present were Vittoria, Busaco, Fuentes D'Onoro, Talavera and Salamanca.

Dr. Widmer practised all the branches of his profession, as well as surgery, with marked success. When he settled in Toronto he was a young man of about 33 or 34 years of age. Before long he was made a member of the Legislative Council of Upper Canada. He was also a member of the Medical Board of Upper Canada. He was present at its first meeting in 1819, and was its President from 1823 till his death thirty-five years afterwards. He was much interested in all its work, and, taking everything into consideration, was perhaps its most useful member. The sittings of this Board were always held quarterly in Toronto. The responsibility of the examination work assigned to it was very great, as for many years it was the only examining medical board in Upper Canada. A candidate, having passed his examinations before it, obtained a license to practise, signed by the Lieutenant-Governor of the Province, and after the union of Upper and Lower Canada, by the Governor-General. Medical students living and intending to practise in Upper Canada, in very early days, could not obtain a medical degree in the Province. Almost the only persons having such a degree had taken it in some one of the then very few degree-conferring universities in the United States. These gentlemen had all to undergo examinations by the Medical Board just as Canadian students did. Candidates possessing recognized British qualifications received the Governor's license on presenting these, with the required identification, to the Board.

Dr. Widmer was a splendid specimen of a medical gentleman of Toronto's early days. For many years he lived on King Street East, nearly opposite what is now Ontario Street. Widmer Lane, still open, is on the west side of the lot on which his house stood. The dwelling was a frame house, square in shape, two stories high, and white painted, and its front was flush with the street. He, after several years, built a handsome brick two-story house on the south part of his lot, about fifty feet north of Front Street, the house facing the south. This house was taken down only about two years ago, and had, after the death of the doctor, for many years presented a very shabby, neglected appearance, surrounded with unsightly buildings of one kind and another. One could hardly conceive, to look at it, that it could have been the handsome residence it was during all the years Dr. Widmer lived in it. In this house he had his office, and did a great deal of surgical and medical work of all kinds. His widespread reputa-

tion attracted multitudes of patients not only from the city, but from the entire Province, and often far beyond it.

When Lord Sydenham was Lieutenant-Governor of Upper Canada his horse fell with him and broke his Lordship's leg. He resided at Kingston, and sent promptly for Dr. Widmer. In those days the roads were very bad, and travelling slow, but, with relays of fresh horses, the doctor got to Kingston as quickly as he could and attended to his patient. The case did so well, and Dr. Widmer's skill and services were so highly appreciated by his Lordship, that he made him a special present of a valuable gold watch. Dr. Widmer was a great worker, always busy, and pleased to be so, but however his time might be taken up by patients able and willing to pay him well for what he did for them, he was always delighted to do all he possibly could gratuitously for the deserving poor during sickness of any kind. I have heard many of his former patients speak of the great kindness and attention he had shown them when they were not in a position to remunerate him as they would have liked to have done, and they often added, "Yet he attended us as well as if we had been the richest people in the Province." For a few years Dr. Widmer took into partnership with him Dr. Deihl, a medical man from Montreal, as it had become quite impossible for him to attend to all his patients without an assistant. This partnership lasted nearly six years and a half, and closed May 1st, 1835.

Dr. Widmer was of medium height, somewhat taller than Lord Roberts, but having much the same figure and erect, soldierly bearing. He was quick and active in all his movements. I fancy I can see him now as he often dressed in summer, with his swallow-tailed blue cloth coat, with its black velvet collar, a light-colored vest, and nankeen trousers, and well-fitting low shoes, neatly tied with black silk ribbon. When looking at a patient for the first time or at whatever might be going on that interested him, he often stood with two or three of his finger-tips in his trouser pockets.

His full-length portrait, painted by request of the medical profession, is now in the General Hospital, and gives an excellent idea of his appearance during the last two decades of his life. I knew him very well, having been his clinical clerk at the Hospital in 1850 and 1851, and remember calling upon him not very long before his death. I found him much depressed, on account of the recent death of his favorite son, Christopher Rolph Widmer. He spoke with much feeling of the shock his son's death had been to him, remarking that it seemed sad to have him cut off in his early youth, and with his life, humanly speaking, before him, while he, his father, now old, and of comparatively little use in the world, was spared. I said what I could to cheer him, and

after he had warmly thanked me for calling upon him, he bade me good-bye, shaking hands with me cordially as he did so. I never saw him again. Very shortly after this interview, on a Sunday afternoon, May 1st, 1858, he walked to the cemetery to see his son's grave, and here, from the walk having been too much for him, and from the depth of feeling as he stood by his loved one's grave, he fainted. He was taken home as soon as possible, but never completely, or indeed to any extent, rallied, although conscious enough to answer a few times when spoken to. He died next morning, about six o'clock, May 2nd, 1858. He was buried on Thursday, May 7th, and a large concourse of his private and professional friends followed his remains to the cemetery, as a last and sad tribute to one who was much loved and greatly respected by all who knew him.

The next celebrated name, and one long associated with this city, and with Canada during a large part of the past century, is that of the Hon. Dr. John Rolph, M.R.C.S.E. He was born at Thornbury, England, March 4th, 1793. The family, *i.e.*, his father's family, came to Canada early in the century. The subject of this sketch did not leave his native country till 1812, in which year the vessel in which he took passage was captured by an American ship, war having been declared by the United States against Great Britain before the ship reached America. The then President, Mr. Madison, was good enough to send him a passport to Canada, a very kind act towards one held as a lawful prisoner, taken on board an enemy's ship at sea. He was sent to Batavia, N.Y., U.S.A., and there detained. Those in charge found him engaged in making what they thought were sketches of United States fortifications and defences of one place or another, and pronounced him a spy. This was found, however, to be a glaring mistake; the young man, only about twenty years of age, having been employing himself in working out some problems in Euclid as a pleasant way of occupying his time. Although the silly suspicion of being a spy was soon found to be quite groundless, it occasioned more or less needless delay. An exchange of prisoners being made, he, with the others, was sent to Canada. After the war was over, he returned to England, where he completed the important studies of his life. These embraced the two professions of law and medicine. He became a member of the Inner Temple, London, and was called to the English Bar in 1821. His medical and surgical studies he pursued under Sir Astley Cooper and others, and his tickets, signed by his teachers, are still in the possession of a member of his family. He had previously graduated in Arts in the University of Cambridge.

The hospitals in which he studied were Guy's and St. Thomas', then conducted under the management of one board, but for many

years past being managed as two separate hospitals, each having its own Board of Governors. Dr. Rolph's diploma, obtained from the Royal College of Surgeons, England, bears the date 1820, giving him the membership of that College. In 1821 he returned to Canada and soon entered the political arena. Being a man of rare culture and great ability, he was always anxious to obtain for his adopted country such political freedom as would promote the happiness and prosperity of her people. But the most advanced of the Reformers of those days never once thought of asking such privileges as all Great Britain's self-governing colonies now enjoy, under which, with sincere loyalty to the Empire of which they form so important a part, they at the same time practically govern themselves, enacting all their own laws in their own free Legislatures, under their own Government, which is responsible only to their own people. Canada, now extending from Sydney, C.B., to Victoria, B.C.; New Zealand, Australia (and a federated South Africa will soon be added to the list), in this way enjoy a freedom unequalled, I think, by any nation in the world. Dr. Rolph was elected a member of the Legislature of Upper Canada for Middlesex in 1824. He did not register till 1829 as a medical man in Canada, as, with his English diploma, he might have done at any time. He gave much of his time to the profession of law, and secured a very large practice, which increased year by year. He was regarded as having no equal, or at least very few indeed, in Upper Canada, as an eloquent and a successful pleader in the courts. One celebrated case of his may be here referred to, which was tried in 1825—the Randall case. It was tried at Niagara, Upper Canada. The question before the jury was practically whether or not Mr. Randall, a member of the Legislature, duly elected, was guilty of perjury in swearing that he had freehold property amply sufficient to qualify him as a candidate for the seat to which he was elected. Mr. Randall declared he owned the property he claimed. The Government of the day, however, had been bold enough to give a patent to another person, one Thomas Clark, and had declared Randall's title as merely a leasehold. "Yes," said Dr. Rolph, his counsel, "but the lease was legally made out and legally conveyed to Mr. Randall, and was for a period of 999 years."

After an absence of only five minutes, the jury brought in a verdict in favor of Mr. Randall. At this trial the appeal made to the jury by Dr. Rolph was one of the most powerful and effective efforts ever made by a barrister on behalf of his client before any Canadian court of justice.

Dr. Rolph was at that time residing in Dundas, and had taken into partnership with him his brother George. The doctor spent most of his time engaged in his law practice, his hands being

always so full of important cases that he found it difficult to overtake all the work that came to him. But even under these circumstances he gave more or less attention to medical cases.

As a speaker in Parliament he had few equals and no superior. His speeches on record, made on special occasions in the House of Assembly of Upper Canada, are even now well worthy of a careful perusal by all interested in the history of the Province. Having been dissatisfied with the decision in a case in 1828, Dr. Rolph (with Dr. Warren Baldwin and Mr. Robert Baldwin, son of Dr. W. Baldwin) threw off his gown and left the court. He believed that at that time it was all but impossible to get justice, and he resolved, therefore, to abandon the practice of law. He carried this resolution out in 1832, and transferred his practice to his brother George, at Dundas. He had, between 1828 and 1832, much unfinished legal business, which he completed, refusing, however, to take new suits. He now threw all his energies entirely into the practice of medicine, in which he had done a little in past years when so busy with his legal work as to leave him but little time to devote to anything else. Only a few years ago, one of the old judges, speaking of Dr. Rolph's giving attention to both law and medicine, said that he would have his horse standing near by, waiting for him, while he was pleading a case in court. Having finished his pleading, he would quickly leave the court and visit patients, carrying his medicines and instruments with him on horseback in his saddle-bags.

Thereafter Dr. Rolph was only known as a medical man, and forthwith became as famous in medicine as he had proved himself to be in law. He began to take pupils again as medical students, in limited numbers, whom he taught as no one else could, the various branches of the medical profession. He was full of enthusiasm as a teacher, and had the gift of making everything he taught glow with interest, and was successful in no ordinary degree in kindling even in students who were difficult to teach, and much more fully in those who were eager, and able to learn quickly, a great enthusiasm for the subjects as he taught them. This was the secret of his great and continuous success as a teacher.

Sir John Colborne, Lieutenant-Governor of Upper Canada (appointed 1828), recognizing his wonderful ability as a medical teacher, urged him to found a medical college in Toronto, and promised Government aid to set it going. This suggestion, unfortunately, was not acted upon. Had it been, how different—how much better and so much earlier might really good medical education have been put within the reach of every intending medical student in Upper Canada.

Dr. Rolph was married in Kingston to Miss Grace Haines, of that city, in 1834. Her parents had some years previously

come to Kingston from Leicester, England. The doctor was most fortunate in the lady of his choice, who was one of the brightest and ablest persons in Canada, and who to the end of his life was all that the best of wives could be to her husband. Mrs. Rolph survived her husband for twenty years.

As an illustration of Dr. Rolph's great kindness of heart, the following story, which should be included in every sketch of his life, however short, is full of interest. Two men in the early thirties were arrested and tried on a charge of stealing an ox. They were convicted by the jury, and sentenced to be hanged. People were horrified and shocked at the prospect of the early execution of the prisoners, and no one more so than Dr. Rolph, who had an office in the village of Vittoria, where they were to expiate their crime on the gallows, and who was much distressed at the thought of inflicting capital punishment for such a crime. He determined to ride to Toronto and intercede with the Lieutenant-Governor, Sir John Colborne. Before leaving on this errand of mercy, the doctor visited the Rev. John Ryerson. It was arranged that Mr. Ryerson, who was to attend the unfortunate men on the scaffold, would delay the execution as much as possible, by making the closing prayer as long as he could, in case Dr. Rolph's return should be in any way delayed. The doctor set out on his journey on horseback, and fully expected to be back some hours before the execution took place. He rode the swiftest horse that was to be had in the village. The people had little faith in his ability to make the journey in as short a time as he hoped to do, and still less faith in the Governor's inclination to interfere in the case. Time passed on; the people flocked from all the surrounding country, as was then the rule. Meanwhile, the men had ascended the scaffold, and Mr. Ryerson was asked to engage in the final prayer. He knelt on the scaffold and began what proved to be the longest and most remarkable prayer of the kind on record. He spoke softly to husband his strength, and prayed for about twenty minutes without creating any remark. He went on to the half-hour without any sign of Dr. Rolph's return. For another half-hour the prayer went on, and the people began to be restless. The sun poured down on their uncovered heads; the people, the sheriff, and even the hangman looked weary. Mr. Ryerson became tired, and even the poor wretches awaiting death were annoyed, for Mr. Ryerson had not told them of his agreement with Dr. Rolph. The murmuring rose higher and higher, yet Mr. Ryerson prayed on without stopping for a whole hour. From fatigue, his words were disconnected, his tongue dry, his voice husky, and unable to form words properly, yet he went on. He told friends afterwards that at last he did not know what he was saying, and that the only real prayer he offered during the

whole time was the silent one, "God hasten Dr. Rolph's coming." At the end of an hour and a half there was more or less uproar, tending to increase, when someone cried out, "Here comes Dr. Rolph!" Mr. Ryerson did not hear or notice the tumult, but kept on praying, his voice becoming weaker every moment. Dr. Rolph, on horseback, came near enough to be recognized and dashed right up to the very foot of the scaffold, himself too weak either to move or to speak. He held up a document in his hand, which was quickly taken by a man in the crowd, who cried out, "Reprieve! reprieve!" It was so. And thus the lives of two men were saved.

During the few years preceding the Rebellion of 1837, Dr. Rolph had occupied many positions. For a short time he, with Dr. Baldwin and Messrs. Dunn and Bidwell, were members of the Executive Council of the Province, but in consequence of the refusal of the Lieutenant-Governor to recognize the principle of Responsible Government, they all resigned. In 1836 he was elected member for Norfolk for the second time, and, having gone to Toronto to live, he continued his teaching of medical pupils. Dr. James H. Richardson is now, I believe, the only survivor of these early medical students. This paper cannot be extended to give any account of the troubles of 1837, in which Dr. Rolph, from his position as a prominent Reformer, because an advocate of Responsible Government, was necessarily more or less involved. It is now generally admitted that the Government of those days in Canada was unwisely arbitrary. Lord Durham, who was specially sent out in 1838 as Governor-General of Canada, and requested by the British Government to look into and report upon the condition of matters in the Canadian provinces at that time, said that had his own lot been cast in Canada at the time of the 1837 troubles, his sympathies would have been with the Reformers.

The attempt at a rising ended, as is well known, in a very small way. Some of those who were more actively involved in it had a reward offered for their capture. Dr. Rolph was one of these. He made his way safely out of Canada, though it was attended with a good deal of risk, as he had more than one narrow escape from being detained. He finally got across Niagara River into the State of New York, where, as a political offender only, he was quite safe. He went for a short time to New York City, and subsequently to Rochester, where he practised medicine successfully till 1843, when the Governor-General of Canada issued a proclamation pardoning all political offenders, upon which he immediately returned to Toronto. Here he resumed his medical teaching, but on a larger scale than before. Students gathered round him at once. He lived on what was then called Lot Street (now Queen Street), and there he practically began what soon afterwards became Dr. Rolph's Toronto School of Medicine. In

1851 the doctor got an Act of Incorporation for his school. For a very short time it went on in an unpretentious way. Its class-room and dissecting-room were in a part of a long shed in Dr. Rolph's yard, which was heated comfortably in winter, and where, after a time, assisted by others, he had all the students to teach that he could accommodate. They were exceedingly well taught in every branch of medical education, and better students never came out of any college, however well equipped, than those who received their education at this school. The way they passed the strict examinations of the Government Medical Licensing Board proved this completely, for none made a higher standing.

One of the earliest advertisements of Dr. Rolph's school was as follows: "Medical students who do not intend to enter the University will be, as heretofore, received by the subscriber, and conducted through the usual course of medical studies, with such additional aid as may be deemed advisable, and prepared for obtaining their diplomas from the Medical Board. (Signed) John Rolph, Lot St., Jan. 1st, 1844."

In 1848 the advertisement was changed, but is made even more brief: "The Session will commence on the last Monday in October, and end on the last Saturday in May, under Dr. Workman, Dr. Park, and the subscriber. (Signed) John Rolph. Toronto, Sept. 25th, 1848."

I attended the session 1849-50. Two or three additional names had been added to the Faculty. This was the last session held in the original lecture-room, where all necessary accommodations were provided to meet the needs of this, which was to become in a very short time one of the largest and best medical colleges in Canada, as the Medical Department of the University of Victoria College, with Dr. Rolph as its respected and revered Dean.

This great advance came gradually. In the summer of 1851 Dr. Rolph built a brick addition to his own residence, of which the first story formed a part, while the second was a museum, well filled with excellent anatomical preparations, and the third story was a convenient and well built new lecture-room, with all modern improvements up to that date. This lecture-room and the museum were entered by a stair leading up from the street (Queen Street West, then No. 53). These were not the only additions to the school accommodations made that year, for Dr. Rolph rented a brick building from Knox Church, used as a Sunday School before Knox Church was built, and then vacant. It was entered from Richmond Street, and with little expense a large lecture-room was fitted up, while for anatomical purposes there was ample room.

With two new lecture-rooms, and everything else that was needed, the school grew rapidly from year to year. Somewhat

unfortunately for it, Dr. Rolph was urged in 1851, and consented, to re-enter the Parliament of the then united Provinces of Canada, East and West, as they were called. He was elected member for Norfolk, his old constituency, and appointed Commissioner of Crown Lands in the Hincks Government. He continued in this position till 1854. This new state of things necessitated his giving up his medical school teaching for a short time, which was carried on as well as possible by his colleagues in his absence. They felt the loss of his teaching very keenly, and he himself was by no means sorry to resume in full what was his most congenial work, as he did not now desire to continue long in his Government and Parliamentary positions. The school after his return soon outgrew all the increased accommodation provided for it, and entered on a new phase of its existence. An unused church building on what is now Bismarck Ave., St. Paul's Ward (then Yorkville), was bought and converted into a very fine medical college, in which was provided everything likely to be required for a good many years. By arrangement with Victoria University, it had become its Medical Department, with Dr. Rolph as Dean.

Some difference in connection with the school arose between Dr. Rolph, who was the Dean of the Faculty, and his colleagues, soon after these last changes had taken place. Most of his colleagues had been educated in medicine chiefly, and some solely, by himself. The Victoria College Board supported Dr. Rolph on its being appealed to in the matter. On this account his colleagues resigned in a body just the day after the opening of the session of 1856-7. The University authorities promptly accepted the resignations which had been sent in, and directed the Dean, as the responsible head of the department, to fill the places of the gentlemen who had retired, as well and as speedily as he could. Although placed in an exceedingly difficult position, the Dean proved himself quite equal to the occasion. During the little more than two weeks it took him to complete new arrangements for carrying on the work of the session, Dr. Rolph alone kept everything going on in the college. He lectured during this period four or five times every day on the various subjects, to the entire satisfaction of the students, who, with hardly an exception, stood by their able teacher and Dean.

The high character of the Dean's teaching during this time made it even more difficult than it would otherwise have proved for the new professors whom he called to his aid, and appointed to fill the vacancies. At this time the writer was appointed Professor of Materia Medica and Therapeutics, to which chair the duties of another were very soon added, viz., those of Midwifery and Diseases of Women and Children; a large burden with which to begin, with no special preparation, the responsible duties of

medical teaching. With further and very willingly rendered help, the session was successfully completed.

Throughout Dr. Rolph's Deanship, which lasted till 1870, this medical school was singularly prosperous. He at first continued to use the name as advertised when the arrangement with Victoria College was first entered into, which was "The Toronto School of Medicine—the Medical Department of Victoria College." The professors who had resigned, as they constituted a majority of the members of the Corporation of the "Toronto School of Medicine," lost no time in renting a building from the University of Toronto, in which they established themselves under the old name of "The Toronto School of Medicine." They soon applied for an injunction to restrain Victoria College and Dr. Rolph from continuing to use the name of "The Toronto School of Medicine." The decision of the court was adverse to the Victoria College and Dr. Rolph (who acted as his own counsel), and the injunction was granted on the ground that, as "The Toronto School of Medicine" was a corporate body, no arrangement such as that alleged to have been made by "The Toronto School of Medicine" with Victoria College could be legally entered into without an Act of the Legislature, authorizing the School to make such an arrangement, and that, as this had not been done, the arrangement made was legally null and void. Unquestionably neither of the parties interested had thought of such a thing being necessary when the arrangement was entered into.

This decision was of no moment so far as Victoria College and Dr. Rolph were concerned. The students and the general public knew well that "Rolph's School," as it was called, was wherever Dr. Rolph was teaching, and the Medical Department of Victoria was thereafter advertised as such, with the addition of the words, "Commonly known as Rolph's School," which answered every purpose. With the Dean at its head, this Medical Department steadily grew in public favor year by year, and was for a long time the most largely attended medical college in Canada. At length, in 1870, having become somewhat feeble from old age (being then in his 78th year), he resigned his position. His resignation was sent in just when it was, because some of his colleagues thought it right, notwithstanding his decided wishes to the contrary, that an "Assistant Dean" should be appointed, and the College Board saw fit to carry this recommendation into effect, upon which the venerable Dean forthwith resigned. The writer, whose views were in full sympathy with those of Dr. Rolph, also resigned at the same time.

The Medical Faculty of Victoria, as then constituted, never recovered from the shock it received by the retirement of its honored head, and of the other professors, who either retired with

the Dean, or soon afterwards. It came to an end during the session of 1874-75. About three years before this time, the Faculty had received permission to sell the Yorkville College building, and had obtained a lot and erected a new building on Gerrard Street, near the General Hospital. The Faculty soon after this resigned, and this new building came to be occupied by the Toronto School of Medicine, which carried on its school there till 1887, when, having joined the Toronto University as its Medical Faculty, it ceased to teach as a separate body.

Dr. Rolph did not live long after resigning his position as Dean, which self-respect and a high sense of honor alone prompted him to do. He retired to Mitchell, Ontario, and died October 19th, 1870, and was buried there. His remains were removed to Toronto twenty-seven years afterwards, and he was buried by the side of his wife, in Mount Pleasant Cemetery. It is surely high time that something should be done to mark the last resting-place of one of Canada's most laborious public servants, and one of her very greatest men.

WHILE THE CHILD WAITS.

How long is it going to be before the women of the country wake up to the fact that there is a problem in connection with the homeless child as at present controlled by the local orphan asylums? How long before they realize that literally hundreds of thousands of lives are being delayed, shadowed, permanently marked? *The Delineator* has preached and preached. It has written to ministers, it has spoken to women's clubs, it has asked representative women to aid. Still we drift. There are the women of the National Congress of Mothers. What have they to say? It is just probable that they do not know even now that the problem exists. There are the women of the Federation of Women's Clubs; what have they to say? The ballot is not necessary in this instance to help the child. There are the women of the D. A. R. and of the Civic Improvement Clubs. And of the churches—shame that we have to speak of the churches last! We have asked President Roosevelt to do something to help. He stands ready to act when public sentiment demands it. We have need of women who will look into the problem of the homeless child, as we have preached it and as it is, and who will then get up and do something. There is a problem. We made it perfectly plain in Mrs. Daggett's article, "Where 100,000 Children Wait." How long is it going to be before the women of the country—the boasted strength and righteousness of America—wake up and find it out?

The Canadian Journal of Medicine and Surgery

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Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

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Editorials.

A PSYCHOLOGICAL REFLEXION

THE selfsame person, according to the line of thought he may be in, or to his emotional mood, will apperceive the same impression quite differently on different occasions.

A lay M.P.P. eloquently expounding to a listening Legislature the advantages of the compulsory notification of tuberculosis

rouses the ire of five members of the Legislature who are doctors. The average layman would suppose that, as doctors, they would relish the speech of their lay colleague, would praise its good points and be lenient in dealing with its weak ones. On the contrary, the doctors rose, one after another, and proceeded to discredit the sanitary measure of the layman, all winding up with the one refrain that the compulsory notification of tuberculosis is absurd. A few days after the debate had occurred, two of these doctors made speeches informing the self-same Legislature that they really favored the compulsory notification of tuberculosis, and they moved that a commission be appointed by the Provincial Government to consider and report on the whole question of tuberculosis in Ontario.

Such conflicting methods of apperceiving impressions of the same subject remind one of the medical expert retained on one side of a case, who will not apperceive the facts in the same way as if the other side had retained him.

Again, the following is an explanation of a learned professor's opposition to the compulsory notification of tuberculosis. A physician may be an excellent practitioner, gaining, well into middle age, a great acquaintance with individual cases connected with disease. In this sense his conceptions increase during a long period, for his knowledge of practice grows more extensive and minute. But the larger categories of conception, the sorts of things, and wider classes of relation between things, of which some take cognizance, are got into the mind at a comparatively youthful age. If a physician has not seriously studied hygiene at college, or at least before thirty years of age, it is a thousand to one that its main conceptions and their applications to the prevention of disease will remain unknown to him through life. J. J. C.

COMPULSORY NOTIFICATION OF TUBERCULOSIS

Compulsory notification of tuberculosis has met with a fourth defeat in the Legislature of Ontario, the bill introduced by Mr. Downey, South Wellington, having been withdrawn after the second reading, March 30th, 1909, at the request of Sir James Whitney, Prime Minister of Ontario. Evidently the pear is not yet ripe. However, Mr. Downey, the eloquent promoter of this bill,

is not discouraged. In consenting to the withdrawal of the bill, he said that he would reintroduce it and reintroduce it, and he believed he would live to see the day when the predominant features of the bill would be embodied in the provisions of the provincial health regulations. Mr. Downey's confidence in the ultimate triumph of his sanitary measures does not seem misplaced, in view of a statement made during the debate by the Hon. Mr. Hanna, the minister who has charge of the Provincial Board of Health, that Mr. Downey's bill was regarded by the Provincial Board of Health as an ideal measure. In fact, this bill, though introduced by Mr. Downey, was really framed by the Provincial Board of Health. Now as it was strenuously opposed by five physicians, who, are members of the Legislature, it follows that, in relation to a most important hygienic measure, radical differences exist between physicians who occupy seats at the Board of Health, and other physicians who are members of the Ontario Legislature. All those physicians are public men. In justice to medical truth, of which they claim to be the exponents, in defence of their own conduct, the rivals should discuss this question before a jury of doctors at the approaching meeting of the Ontario Medical Association, so as to satisfy the public and the profession in Ontario as to the soundness of the arguments advanced in the Legislature for and against the compulsory notification of tuberculosis.

J. J. C.

THE BUR IN UNDERWEAR CAUSES PRURITUS

In the December, 1904, number of this Journal, we published an editorial note showing that itching is sometimes caused by burs in the underwear worn by the patients. These burs cannot be entirely removed from the fleece employed in making yarn, from which woollen underwear is manufactured. They plague the wearers, when the offending garments are first worn, but the pruritus is not continuous, owing to the fact that the burs become detached by the destructive operations of the machine laundry or the milder vibrations of the domestic washing machine. The cure of this pruritus consists in substituting cotton or linen-mesh underwear for the woollen article, or in patiently dissecting out the burs from the offending underwear. An article on "The Signi-

ficance and Treatment of Itching," by Dr. Duncan Bulkley, New York City, appeared in the *Journal of the American Medical Association,* July 27, 1907. Under the head of mechanical irritants causing pruritus he says: "We find the irritability of the skin often occasioned by *harsh* underwear,—some persons experience much trouble when they first put on woollen underwear garments, and some think they can never wear them, on account of the itching they excite."

Under the head of the treatment of pruritus, Dr. Bulkley says: "The kind of underclothing is also sometimes of consequence, although I think its importance is frequently overestimated. I believe that most skins are better with pure woollen garments next to them, if the texture is fine and unirritating, although I find that a number do well with the linen mesh undergarments." He makes no reference to the presence of burs on the undergarments. Having had medical charge, for several years, of a large college for young men and boys, we were frequently consulted by the inmates for pruritus. In some of the cases the presence of burs in the woollen undergarments was revealed on examination. We well remember the incredulity with which this diagnosis of pruritus was received. However, the demonstration of a black, fine hair-like body, closely wound around and dipping in among the woollen yarn, offering a strong contrast to the latter in color; in new, unwashed garments of a firm outline, in older ones less distinctively marked, convinced the wearers that there was something in the underwear which they had not bargained for. In these cases, the parts of the body irritated were the hypochondriac, lumbar and umbilical regions—the parts about the waist. The affected skin was hyperemic, looking like the condition observed in erythema; in some individuals the rash resembled an eruption of hives limited to a certain region. The limbs were not much affected. The itching was most complained of during the day. The itching disappeared after the patient began to wear cotton or linen mesh underwear.

Our reason for writing this editorial is that Dr. Bulkley, while he has written a special article on pruritus, and while he incriminates harsh woollens as a cause of pruritus, does not mention the real cause of the harshness of woollen underwear. We may say that some manufacturers have tried to dodge the issue by turning

out underwear made of silk combined with wool; but the burs can be demonstrated in these expensive suits, just as well as in the cheaper ones. J. J. C.

EDITORIAL NOTES.

Severe Criticism of Expert Medical Evidence.—Severe comments on expert medical evidence were made by a leading counsel in a jury case tried in a Toronto court, March 24, 1909. The contention of the counsel, who represented the Crown Life Insurance Company, was, that a policy-holder in that company had committed suicide by taking a narcotic, hydrate of chloral, and that the company was not liable for the amount of the insurance, $15,000. The counsel said: "I'm not going to use the methods of my learned friend by abusing the two learned men, whom I highly respect, just because they happen to give evidence against me. What I complain of is to see the doctors swayed. It pains me to see medical men taken up with the sides by whom they are hired. It is a most unfortunate thing. Here are you and I, mere honest men, and we see the learned medical men coming here and trying to draw a herring across the trail, by suggesting concussion of the brain, when they know and you know concussion of the brain had no more to do with this case than the laws of the Medes and Persians. Then another comes along with ptomaine poisoning, and uremic poisoning, and again the farce is once more gone through. It is a pitiable sight. I don't want anything but the truth," said he, near the end. "If you don't think that that man committed suicide, then say so. There is something more important than that the Crown Life Insurance Company should pay $15,000, and that is that the machine of justice should not be put out of gear." The jury found that the deceased broker had not committed suicide. The cause of death, an overdose of a narcotic, was not disputed; but that it had been taken with a suicidal intent was denied. The insurance company lost the case.

Poisoning by Hydrate of Chloral.—Professor Liebrich has called attention to a curious circumstance, viz.: that, after a person has taken a dose of chloral, alcohol produces much more than its ordinary effect in flushing the face. This result seems to be

due to the paretic action of chloral on the arteries and capillaries as well as the heart. Naturally then, when treating a case of acute chloral poisoning all alcoholic stimulants should be avoided. In a well-known visiting list, under the heading of emergencies, the treatment recommended for poisoning by chloral is: "Empty the stomach, apply warmth to surface and give stimulants." The adjective non-alcoholic should have been placed before the noun *stimulants*. The remainder of the advice given is sound, viz.: Give strychnine (gr. 1-20), picrotoxin (gr. 1-20), atropine, digitalin, or amyl nitrite, oxygen inhalations, artificial respiration, electricity. In acute chloral poisoning, alcoholic stimulation would seem to be urgently demanded, for the patient's pulse is feeble, thready and irregular, the temperature below normal, respiration slow, the skin, particularly that of the forehead and extremities, may be covered with cold sweat, and is pallid and cyanotic. There is also great muscular relaxation, together with abolition of the reflexes. In his text-book of Materia Medica, Therapeutics and Pharmacology, Dr. Butler says: "The symptoms of poisoning from lethal doses of chloral are those of profound alcoholic narcosis, plus the specific chlorine action. In its depressing action on the heart, chloral is more pronounced than are other non-chlorinated members of the alcohol group." He thinks it is highly probable that the presence of chlorine is an important factor in this added toxic action in the circulation.

The Treatment of Cancer by the use of Potassium Bichromate.—Dr. Fenwick(Accrington (Eng.), publishes a paper in *The British Medical Journal,* March 6, 1909, on the treatment of cancer by the use of potassium bichromate. His cases include scirrhus of the breast, epithelioma of the neck and face, and rodent ulcer. He employs a saturated solution of the salt, in most instances injecting seven minims into the growth every second day. Sloughing of the growth ensues, and it is extruded. Eighteen cases are reported by Dr. Fenwick. As an addendum to this paper, Dr. Pilkington, Philadelphia, who had studied this method of treating cancer under Dr. Fenwick, reports three cases of malignant disease treated by himself in America. Dr. Fenwick mentions that two of his successful cases had undergone surgical operations before receiving his treatment. One of these was a

case of cancer of the breast, which had been operated on at the Victoria Hospital, Burnley, August, 1907. In January, 1908, a lump about the size of a hen's egg appeared in the cicatrix. The bichromate of potassium injections were begun in January and the disease was cured in March, 1908. There has been no further recurrence. The patient has lost the cancerous cachexia and is looking well and strong. This was a case of secondary scirrhus. The second case was probably epithelioma of the lip although it is not so stated in the report. This patient was operated on surgically, at the Preston Infirmary, November, 1905. The disease returned in four months. Six injections were given by Dr. Fenwick, and the patient reported November 3rd, 1908, "I enjoy the best of health and have felt no effect of my lip since you treated it." The treatment is simple, inexpensive, and, in Dr. Fenwick's opinion, effects a lasting cure of rodent ulcer and epithelioma. In one of the cases reported by Dr. Pilkington, an extensive epithelioma involving the whole lower lip and the chin down to the margin of the lower jaw, with half an inch of the left angle of the mouth and upper lip, a cauliflower-like mass on the lip and a gland-like mass of about the size of a large grape were excised at the skin margin, the patient being under ether. A simple dressing was applied, until the following day, when the base of the growth was injected with half a gram of a saturated solution of potassium bichromate. Injections were made every other day, the dose being increased, until 1½ grams were used. There was considerable pain, which was controlled by a hypodermic injection of morphine, given a few moments before the injection of the solution of potassium bichromate. The slough separated early in August, 1907, about three months after treatment had been begun. The patient was discharged November 1st, 1907. In December, 1908, the patient was in good health, the cicatrix is soft, pliable and well supplied with blood vessels; there is but little deformity.

Some Thoughts about Tea-drinking.—In the London papers we observe that the War Office has sent a circular to all its girl employees warning them against excessive tea-drinking, especially between meals and with their luncheon. The point is well taken, and any honest tea-drinker will confess that the gloriously insipid draught cannot replace bread and meat as a working ration.

Neither, on the other hand, can bread and meat fulfil the office of tea, when life is trembling in the grasp of shock, or in a case of poisoning associated with low blood pressure or respiratory depression. At dawn, one summer's day, we well remember seeing a woman, who, after a night attack of cholera nostras, sat in a rocker unable to move, faintly breathing, with pulse just discernible, dejecta escaping audibly onto the floor. There was no alcohol in the house and even if some alcoholic liquor had been given the patient, she might not have been able to retain it. While the woman's husband ran for a near-by colleague, spying a brown betty on the top of the kitchen stove, we poured some hot tea from it into a saucer, and with a teaspoon placed some of the hot tea in the patient's mouth. This process was kept up intermittently for about twenty minutes, when the patient's pulse became fairly discernible. Our colleague, the late Dr. Fulton, who arrived about the same time with the husband, agreed with us, that the outcome of the case was a remarkable proof of the reviving power of hot tea in saving a patient from imminent death. J. J. C.

PERSONALS.

Dr. Ernest Jones (late of London, England) announces that he has established himself at 407 Brunswick Ave., Toronto, and that he confines his practice exclusively to nervous diseases.

Dr. John Caven returned to the city about April 1st, after spending two months in Florida, and "Richard is 'imself again," nowithstanding his harrowing experience on board the S.S. *Republic.*

Dr. A. T. Hobbs, Superintendent, Homewood Sanitarium, Guelph, is in Europe, taking up the study of mental and nervous diseases. He will spend some time in Berne, Munich, Vienna, Berlin and London, returning to Canada early in July.

We desire to tender our sympathy to Dr. P. G. Goldsmith on his recent sad bereavement. Dr. Perry Goldsmith, in the death of his father, lost a beloved parent, who was not only a respected and highly esteemed member of our profession, but for many years a citizen of note in Belleville.

The Shelton Electric Co., of Chicago, announce to our readers that they have opened a large and commodious place at 105 West 42nd St., New York City. This was necessitated, owing to the increased demand, and in order to take care of their export trade. Our readers will find their exhibit of vibrators, centrifuge and other electrical appliances to be very interesting and well worth a special call at the above address.

The G. Gramer Dry Plate Company, of St. Louis, take pleasure in announcing the addition to their staff of Mr. R. James Wallace, F.R.A.S., F.A.P.S., etc., the noted photographic investigator. Mr. Wallace comes direct from the Yerkes Observatory of the University of Chicago faculty, leaving the position which he occupied there as head of the department of photophysics to undertake the direction of the factory research laboratory. The possession of a thoroughly equipped chemico-physical research laboratory devoted especially to this work, and which is probably unequalled by any other worker in this country, guarantees the quality of test to which new products will be subjected, while the published work and prior commercial experience in trichromatism and general photo-engraving, assures intelligent consideration of the needs of this large and constantly increasing class of workers. Consultation upon special technical matters connected with the photography of light and color will receive prompt and careful consideration, and suggestions offered when necessary.

Obituary.

DEATH OF DR. P. GOLDSMITH, LATE OF PETERBORO

Dr. P. Goldsmith, of Toronto, died at Belleville on April 5th, very suddenly, of heart failure. He had been in feeble health for some time. He went there from Toronto a few days previously, on a visit, and died at the home of a friend. Dr. Goldsmith had practised medicine successfully for many years in Peterboro, Campbellford and Belleville. While in Belleville he was physician to the Deaf and Dumb Institute. He moved to Toronto about two years ago.

He was a prominent Methodist. A widow and family survive, among the sons being Dr. P. G. Goldsmith, of Toronto. Deceased was 64 years of age.

Proceedings of Societies.

PROVISIONAL PROGRAMME FOR THE ANNUAL MEETING OF THE ONTARIO MEDICAL ASSOCIATION

TUESDAY, JUNE 1ST, 1909.—MORNING SESSION.

Medical Section.—10 a.m.

1. Paper—A. Sangster, Stouffville.
2. "Grave's Disease"—H. B. Anderson, Toronto.
3. Paper.—E. Ryan, Kingston.
4. "Differential Diagnosis of Cerebellar Tumors—Ernest Jones, Toronto.
5. "A Case of Opium Poisoning"—A. Taylor, Goderich.
6. Paper—R. J. Dwyer, Toronto.

Surgical Section.—10 a.m.

1. "Hodgkin's Disease"—W. J. O. Malloch, Toronto.
2. Paper—H. E. Hayd, Buffalo.
3. "Surgical Treatment of Gall Stones"—C. F. Moore, Toronto.
4. Paper—J. W. S. McCullough, Alliston.
5. "A Case of Appendicitis"—Everett Hicks, Port Dover.
6. "Malignant Tumors of the Neck"—A. Primrose, Toronto.

Section of Gynecology, Obstetrics, and Diseases of Children.

1. "Occipito-posterior Position"—F. Fenton, Toronto.
2. "Use of Hyoscine and Morphine in Obstetrical Work"—C. H. Vrooman, Winnipeg.
3. "Case in Practice"—W. Spankie, Wolf Island.
4. "Toxemia of Pregnancy"—H. M. Little, Montreal .

General Session.—2.30 p.m.

1. President's Address—H. J. Hamilton.
2. "Acute Septic Peritonitis"—J. B. Deaver, Philadelphia.

TUESDAY EVENING, 8.30 P.M.

1. "Results of the Serum Treatment of Cerebro-spinal Meningitis"—L. Emmett Holt, New York.
2. Paper—J. Alder, New York.

WEDNESDAY, JUNE 2ND, 1909.—MORNING SESSION.

Medical Section.—9.30 a.m.

1. "Symposium, Present Day Therapeutics."
   (a) "Nihilism in Therapeutics"—J. T. Fotheringham, Toronto.
   (b) "Nostrum Evil"—J. Ferguson, Toronto.
   (c) "Tuberculin Therapy"—J. H. Elliott, Toronto.
   (d) "Bier's Hyperemic Treatment"—S. H. Westman, Toronto.
   (e) "Recent Advances in X-Ray and Radium Therapeutics"—C. R. Dickson, Toronto.
2. "Therapeutics of Digitalis"—V. E. Henderson, Toronto.
3. "Hypothyroidism"—W. B. Thistle, Toronto.

Surgical Section.—9.30 a.m.

1. Paper—C. B. Shuttleworth, Toronto.
2. "Repair of 3 cm. Defect of the Median Nerve, due to old Injury. Almost Complete Restoration of Function"—Ingersoll Olmstead, Hamilton.
3. Paper—J. S. Wardlaw, Galt.
4. Paper—R. R. Wallace, Hamilton.
5. Paper—A. MacKinnon, Guelph.
6. "Status Lymphaticus"—H. A. Bruce, O. R. Mabee.

Section of Diseases of Eye, Ear, Throat and Nose.—9.30 a.m.

1. Exhibition of Cases.
   Exhibition of Specimens, Instruments, etc.
   Demonstrations of New Methods.
2. Papers—
   (a) "Influence of Light Rays on the Retina"—J. N. MacCallum, Toronto.
   (b) Paper—W. F. Chappell, New York.
   (c) "Bronchoscopy," etc.—D. J. G. Wishart, Toronto.

Section of Gynecology, Obstetrics and Diseases of Children.—9.00 a.m.

1. Symposium—Slightly Contracted Pelvis in Pregnancy and Labor.
2. Paper—A. E. McColl, Belleville.
3. "Ultimate End of Surgery with Special Reference to the Surgery of the Pelvic Organs in Women"—W. P. Manton, Detroit.

WEDNESDAY AFTERNOON.—GENERAL SESSION, 2.30 p.m.

1. "Copious Water Drinking in the Treatment of Typhoid Fever"—E. F. Cushing, Cleveland.

WEDNESDAY EVENING.—ANNUAL DINNER.

THURSDAY, JUNE 3RD, 1909.—MORNING SESSION.

Medical Section.—9.30 a.m.

1. Paper—J. Fisher, Stratford.
2. Paper—J. A. Bauer, Hamilton.
3. "Gastrogenous Diarrheas"—Graham Chambers, Toronto.
4. "Landry's Paralysis"—R. G. Kelly, Watford.
5. "Results in Vaccine Treatment of Certain Bacterial Diseases"—G. W. Ross, Toronto.

Surgical Section.—9.30 a.m.

1. "Movable Kidney"—W. McKeown, Toronto.
2. "Intussusception"—J. M. Elder, Montreal.
3. Paper—J. M. Rogers, Ingersoll.
4. Paper—Hadley Williams, London.
5. "Diagnosis and Surgical Treatment of Abscesses of the Liver"—L. C. Prevost, Ottawa.
6. "Chloroma"—W. W. Jones, Toronto.

Section of Gynecology, Obstetrics and Diseases of Children.

1. "Diagnosis of Genito-Urinary Diseases of Women"—Ellice McDonald, New York.
2. Paper—K. C. McIlwraith, Toronto.
3. Paper—A. Jackson, Bolton.
4. Paper—Allen Baines, Toronto.
5. Paper—F. Fenton, Toronto.
6. "Malignant Tumors of the Ovary"—F. A. L. Lockhart, Montreal.

General Session.—2.30 p.m.

Address in Medicine—Prof. Wm. Osler, Oxford, Eng.

PRELIMINARY PROGRAM OF THE AMERICAN PROCTOLOGIC SOCIETY

The American Proctologic Society will hold its Eleventh Annual Meeting in Haddon Hall, Atlantic City, N.J., June 7 and 8, 1909, to which the profession is cordially invited to attend all meetings.

The officers of the Society are: President, George B. Evans, M.D., Dayton, Ohio; Vice-President, John L. Jelks, M.D., Memphis, Tenn.; Sec.-Treas., Lewis H. Adler, Jr., M.D., Philadelphia, Pa.

The Executive Council are: A. Bennett Cooke, M.D., Chairman, Nashville, Tenn.; George B. Evans, M.D., Dayton, Ohio; Samuel T. Earle, M.D., Baltimore, Md.; Lewis H. Adler, Jr., M.D., Philadelphia, Pa.

The programme is as follows: Monday, June 7—Executive Council meets at 11 a.m.; first regular session at 2 p.m.; annual address of the President, subject: "Progress in Proctology," by George B. Evans, Dayton, Ohio.

Papers.

"A Review of Proctologic Literature for 1908." Samuel T. Earle, Baltimore, Md.

"An Operation for Anal Pruritis." Thos. Chas. Martin, Washington, D.C.

"The Treatment of Pruritis Ani, including a Consideration of its Pathology." Wm. M. Beach, Pittsburg, Pa.

"Appendicostomy as an Aid in the Treatment of Malignant and Intractable Dysentery." John L. Jelks, Memphis, Tenn.

"A Consideration of the Prophylaxis and Treatment of Cicatricial Rectal Stricture." Alois B. Graham, Indianapolis, Ind.

"The Use of Spinal Anesthesia in Rectal Surgery." Collier F. Martin, Philadelphia, Pa.

"Vaginal Anus in the Adult, with Report of Two Cases." Louis J. Hirschman, Detroit, Mich.

"Tubercular Fistula with Extensive Infiltration, with Specimen Exhibited." Samuel T. Earle, Baltimore, Md.

"Abdominal Massage as a Means of Relief in Chronic Constipation, etc." Thos. L. Hazzard, Pittsburg, Pa.

"Intestinal Auto-intoxication: Its Treatment by Irrigation." Wm. L. Dickinson, Saginaw, Mich.

"Peritoneal Adhesions, with Specimen Exhibited." Jos. A. MacMillan, Detroit, Mich.

"Diseases of the Colon and Rectum as Caused and Influenced by Pathologic Conditions of other Abdominal and Pelvic Organs: Illustrative Cases." A. Bennett Cooke, Nashville, Tenn.

"Necessity for Routine Examination of the Rectum in Intestinal Diseases: Illustrative Cases." Dwight H. Murray, Syracuse, N.Y.

"Ball's Method of Operating on Internal Hemorrhoids." George W. Coombs, Indianapolis, Ind.

"Ball's Operation in the Treatment of Cases of Pruritis Ani, with Report of a Case in which Necrosis of the Flap Occurred." Louis J. Krouse, Cincinnati, Ohio.

"Test Diet: Its Value in Intestinal Disturbances." Jerome M. Lynch, New York City, N.Y.

"Primary Gonorrhea of the Rectum in the Male." Alfred J. Zobel, San Francisco, Cal.

"Further Observations in the Use of Bismuth Paste in the Treatment of Rectal Fistula." J. Rawson Pennington, Chicago, Ill.

"Venereal Diseases of the Anus and Rectum." Jas. P. Tuttle, New York City, N.Y.

"Some of the Unusual Conditions which One Meets after a Number of Years Spent in the Domain of Proctology." Jos. M. Mathews, Louisville, Ky.

"Pruritis Ani: Its Etiology and Treatment." T. Chittenden Hill, Boston, Mass.

"Foreign Bodies in the Rectum and Sigmoid Flexure." Edw. A. Hamilton, Columbus, Ohio.

"The Treatment of Constipation." Samuel G. Gant, New York City, N.Y.

"A Consideration of Some of the Benign Growths of the Rectum." George J. Cook, Indianapolis, Ind.

"Malformations of the Anus and Rectum." J. Coles Brick, Philadelphia, Pa.

"Nevus of the Anal Region, with Report of a Case Associated with Internal Hemorrhoids." Lewis H. Adler, Jr., Philadelphia Pa.

News of the Month.

CANADIAN MEDICAL ASSOCIATION

For the forty-second annual meeting of the Canadian Medical Association in Winnipeg on the 23rd, 24th and 25th of August, 1909, transportation arrangements have been completed. For delegates, their wives and their daughters, (no others) from points east of Port Arthur the rate will be single fare plus twenty-five cents, for round-trip tickets, provided fifty or more are present holding Standard Convention Certificates. These tickets will be on sale from August 14th to 21st, final return limit from Winnipeg, September 25th. If Lake Ontario route is used, payment of the following arbitraries must be paid to the pursers of the Richelieu lines: During August, Toronto to Montreal, $8.00; from Kingston to Montreal, $4.50. During September, from Toronto to Montreal, $6.65; from Kingston to Montreal, $3.50. Upper Lakes: Going, $3.50 additional; returning, $8.50 additional. Side trips from Winnipeg one fare for the round trip, August 25th to September 24th inclusive. Alaska-Yukon-Pacific rates will apply for side trips to Pacific Coast points. Side trips to interior points in British Columbia will be announced in the annual circular issued in June or July 1st. Local convention plan arrangements will prevail for the West as far west as Laggan, and Coleman, Alberta. Lowest one way first class fare from British Columbia; date of sale of tickets beginning August 16th to 19th inclusive, with final return limit September 25th. Anyone can find out the single first-class fare to Winnipeg by enquiring of their station agents.

THE TORONTO GENERAL HOSPITAL EX-HOUSE STAFF BANQUET

A very jolly dinner was held at the King Edward Hotel on Easter Monday night, the occasion being the annual re-union of the old internes of the Toronto General Hospital. Dr. Alex. Taylor, of Goderich, the oldest living ex-House Surgeon, presided, and delivered a most interesting address on the treatment that was carried out in 1869 and 1870 while he was on the staff.

In those days the house staff consisted of two members and

four nurses; now there are sixteen house doctors and one hundred nurses. The nurses in those days had no special training.

Pneumonia, pleurisy, bronchitis and typhoid fever (where the bowels were very much distended) were treated by poultices of linseed made as hot as the hand could bear them. The professional qualification of a nurse depended greatly on her ability to make and apply poultices. It (the poultice) must be neither too wet nor too dry. If the case were one in which the lung was involved a bandage was applied to the mattress and the poultice was made large enough to go completely around the chest. Many of the visiting physicians would not allow any cheese cloth to be put between the linseed and the chest, thinking that the poultices, when applied to the skin, would "draw out the disease"; and then would pin or sew the bandage as tight as they could for fear that it might not be applied to every part of the skin.

Dr. Taylor had some patients with pneumonia with respiration of 45 to the minute, and with a temperature of 104-105, raised to a sitting posture to enable the nurse to properly apply poultices; and, what was still worse, the weaker the patient got the oftener the poultices were applied. If the patient survived that treatment for five or six days he was then sponged with soap and water and had a fly blister applied. The medical men were very careful about the size and shape of the blisters, and would give the house doctor very definite directions, often cutting out a pattern for his guidance from a piece of paper. If it was not placed on the exact spot where it was ordered the nurse and house doctor were severely reprimanded. After the blister had been on from six to eight hours it was removed and poultices were again applied, and a repetition of the same procedure until the patient got better or passed away. If the patient lingered on and did not respond to the above treatment a seton was introduced which was turned daily for weeks at a time, to the great discomfort of the patient.

Dr. Taylor spoke of the great difficulty they had in combating smallpox and other contagious diseases, which in some instances were found in the same ward with other diseases. Blood-letting was a favorite proceeding in those days. Dr. Taylor says that he had never seen a case die where blood-letting had been performed.

Typhoid fever was treated with large doses of quinine, up to thirty grains being given. To sponge with cold water would have been an unpardonable crime. He never remembered seeing a patient get a cleansing bath of soap and water until he was convalescing. Large quantities of milk and milk and lime-water were administered. There were no bed pans in those days, and the patient, no matter how weak, was obliged to get out of bed in all stages of the disease. This increased the mortality very greatly.

If a house doctor would give a patient, after confinement, a drink of cold water or advise the taking down of curtains to allow the fresh air and sunlight in, and if by chance, from some cause, the patient died, the blame was meted out to the cold water or to the fresh air or the light.

Dr. Taylor then described the introduction of the antiseptic spray into the hospital, and also referred in pleasant terms to some of his old teachers and chiefs:—Drs. Widmer, Beaumont, Bovelle, Hodder, Aikens, Bethune, Richardson, Geikie and Ogden.

Dr. O'Reilly capped the climax of Dr. Taylor's description by referring to the treatment accorded patients in the "Old Hamilton Hospital" in what he termed the "prehistoric days." An explosion of laughter followed every sentence of Dr. O'Reilly's description.

Toasts of "The King," "The President," "The Ex-Superintendent," and "The Present Superintendent," were drunk with great heartiness.

The following officers were elected for the coming year:—President, Chas. McGillivray, Whitby; Vice-President, Chas. E. Trow, Toronto; Secretary, Dr. N. E. Brown, Toronto; Treasurer, W. B. Hendry, Toronto.

Councillors: A. Ardagh, Barrie; Harry Hutchinson, Toronto, and Colin Campbell, Toronto.

PLANS FOR THE NEW GENERAL HOSPITAL

The plans for the new General Hospital are very nearly matured, and the building, which is to occupy the ten acres set apart for the purpose at College street and University avenue promises to be one which will open the eyes of the people of Toronto. The Plans Committee met recently, and got everything in readiness for the submission of their report to the Board of Trustees.

Before the plans are finally submitted to the Board, however, they will be examined by two experts, Mr. R. B. Howard, of Boston, and Christian Holmes of Cincinnati. Mr. Howard has been associated with the building of a number of hospitals, and is considered one of the leading experts in hospital construction. Mr. Holmes makes a specialty of hospital architecture, and is at the present time preparing an article on hospital construction for a medical encyclopedia. He is also actively interested just now in the building of a large municipal hospital in Cincinnati. He recently spent a year in Europe studying European methods of construction.

These two experts recently spent a week on the plans of the

hospital here. After they have passed upon them they will have to be submitted to the Board of Trustees. After they have been approved by the Board they will have to be amplified, and the working plans made. All this takes time. In addition, the site, which is at the present time covered with buildings, will have to be cleared.

DR. C. G. HEYD WINS COVETED POSITION IN NEW YORK

Word was received some weeks ago of the appointment of Charles Gordon Heyd, son of Louis Heyd, K.C., Toronto, to the position of interne in the Post-graduate Hospital at New York. This is a position much sought after by medical students all over the continent. A competitive examination is held to decide who will be appointed. Mr. Heyd passed head of the list.

Dr. Heyd is a graduate of Toronto University. He has for the past year been studying medicine in Buffalo. He is twenty-four years of age.

THE McCHARLES PRIZE

In view of the great interest now being taken by Canadians in all developments in the natural resources of the Dominion, the bequest of the late Æneas McCharles, providing a fund for the purpose of recognizing the inventions or discoveries of special merit made by Canadians, will be welcomed by all.

The following extract from the will of Mr. McCharles, and the accompanying regulations drawn up by the Board of Governors of the University of Toronto governing the award as set forth below, give full details concerning the prize, which will be offered for the first time this year.

In connection with the bequest of the late Æneas McCharles of Provincial Government bonds of the value of $10,000, on the following terms and conditions, namely, that the interest therefrom shall be given from time to time, but not necessarily every year, like the Nobel prizes in a small way: (1) To any Canadian from one end of the country to the other, and whether student or not, who invents or discovers any new and improved process for the treatment of Canadian ores or minerals of any kind, after such process has been proved to be of special merit on a practical scale; (2) Or for any important discovery, invention or device by any Canadian that will lessen the dangers and loss of life in connection with the use of electricity in supplying

power and light; (3) Or for any marked public distinction achieved by any Canadian in scientific research in any useful, practical line. The following conditions, as passed by the Board of Governors, determine the method of award:

(1) The title shall be the McCharles Prize.

(2) The value of the prize shall be One Thousand Dollars ($1,000.00) in money.

(3) The term "Canadian" for the purposes of this award shall mean any person Canadian born who has not renounced British allegiance; and for the purposes of the award in the first of the three cases provided by the bequest, domicile in Canada shall be an essential condition.

(4) Every candidate for the prize shall be proposed as such in writing by some duly qualified person. A direct application for a prize shall not be considered.

(5) No prize shall be awarded to any discovery or invention unless the same shall have been proved to the satisfaction of the awarding body, to possess the special practical merit indicated by the terms of the bequest.

(6) The order of priority in which the three cases stand in the wording of the bequest shall be observed in making the award; that is, the award shall go *caeteris paribus* to the inventor of methods of smelting Canadian ores; and, failing such inventions, to the inventor of methods for lessening the dangers attendant upon the use of electricity; and only in the third event, if no inventors of sufficient merit in the fields of metallurgy and electricity present themselves, to the inventor distinguished in the general field of useful scientific research.

(7) "The first award shall not be made before June, 1909.

A committee to make the award of the prize has been appointed by the Board of Governors of the University of Toronto.

It will be seen from these conditions that the Committee of Award is given a wide scope in making its selection, as the prize is open to candidates in every part of the Dominion, and is not necessarily confined to those who have made discoveries or inventions in recent years.

All communications in connection with this award should be addressed to the secretary of the McCharles Prize Committee of Award, University of Toronto, Toronto.

The Physician's Library.

BOOK REVIEWS

Clinical Diagnosis and Treatment of Disorders of the Bladder, with Technique of Cystoscopy. By FOLLEN CABOT, M.D., Professor Genito-urinary Diseases, Post-Graduate Medical School; Attending Genito-urinary Surgeon, Post-Graduate and City Hospitals, New York. Publishers, E. B. Treat & Co. New York.

Cabot's book should prove a useful guide to the general practitioner when looking for practical methods for the diagnosis and treatment of bladder disorders. While it would be quite impossible for the average man to make full use of such a book without a considerable clinical experience, yet with such a work, together with a supply of clinical material, he should make great strides toward the better understanding of the conditions with which he has to deal. F. N. G. S.

Soured Milk and Pure. Cultures of Lactic Acid Bacilli in the Treatment of Disease. By GEORGE HERSCHELL, M.D., London, Fellow of the Royal Society of Medicine. Late Senior Physician to the National Hospital for Diseases of the Heart. Physician to the West End Hospital for Diseases of the Nervous System, and Physician to the Farringdon General Dispensary. Second Impression, ninth thousand. London: Henry J. Glaisher, 57 Wigmore Street W. Chicago: W. P. Keener & Co., Wabash Ave. 1909.

This work is an amplification of a paper which appeared in *The Lancet* of August 8th, 1908. It is divided into three chapters.

Chapter I.—Auto-intoxication and Intestinal Putrefaction.

Chapter II.—The Selection and Preparation of Lactic Acid Ferments for Use in Practice.

Chapter III.—The Administration of Lactic Acid and Ferments in Disease.

We have found this a very interesting little work. Like other works from the pen of Dr. Herschell it is very practical, and is intended as a guide to the use of the lactic acid ferments in disease. Some points of the work, such as the estimation of the ethereal sulphates, are rather technical for the majority of gen-

eral practitioners, but most of the tests are fairly simple, such as those for the diagnosis of intestinal putrefaction and fermentation.

The directions for the selection and preparation of the lactic acid ferments are very practical and necessary for an intelligent use of the lactic acid bacilli.

In Chapter III the diseases in which this treatment is indicated are enumerated, and much useful information is given in a new and most interesting class of cases. W. J. W.

Epoch-making Contributions to Medicine, Surgery, and the Allied Sciences. Being reprints of those communications which first conveyed epoch-making observations to the scientific world, together with biographical sketches of the observers. Collected by C. M. B. Camac, M.D., of New York City. Octavo of 435 pages, with portraits. W. B. Saunders Company. 1909. Artistically bound, $4.00 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

This exceedingly unique book has been "dedicated to Lord Lister," a delicate compliment to one of the world's masters of surgery.

It is all too true that far too many contributions to medical science too soon find their way into oblivion, and become buried before ever they receive their just meed of praise. This is not only the case as regards contributions of perhaps but mediocre merit, but altogether too frequently the use as to those showing research and experimental investigation. The author of this book has collaborated many very valuable and "epoch-making contributions to medicine, surgery, and the allied sciences" covering between four to five hundred pages. The volume consists of in all seven sections under the following headings: Antisepsis, Circulation of the Blood, Percussion of the Chest, Auscultation and the Stethoscope, Vaccination against Smallpox, Anesthesia, and Puerperal Fever. Under each such section is to be found on the opening page, portraits of world-renowned scientists whose discoveries have identified them with that particular subject. For instance, under "Antisepsis" we find a portrait of Lord Lister; under "The Circulation of the Blood," a portrait of William Harvey; under the chapter on "Percussion" we see an excellent likeness of Dr. Leopold Auenbrugger; under "Auscultation" a portrait of the celebrated Laennec; one of the immortal Jenner in connection with the section on "Vaccination," a portrait of W. T. G. Morton confronting the chapter on "Anesthesia," and one of Dr. O. W. Holmes, opening the section on "Puerperal Fever." Thus has the author of this splendid work paid tribute to those scientists in medicine whose names are known the wide world over.

The opening chapter on "Antisepsis" is Sir Joseph Lister's address on Antiseptic Surgery as read before the Surgical section of The British Medical Association at Dublin on August 9th, 1867.

These are but one or two of the salient features of Dr. Camac's book, and we heartily commend the volume to all. It is indeed unique and worth possessing. W. A. Y.

The Human Species. Considered from the standpoint of comparative anatomy, physiology, pathology and bacteriology, By Ludwig Hopf. Authorized English edition with 216 illustrations and 7 plates. Longmans, Green & Co., 39 Paternoster Row, London, New York, Bombay and Calcutta. 1909.

This book of 457 pages is full of most interesting data in connection with the evolution of the human species. The subject under discussion is always one of great interest to the comparative anatomist, as well as to all who are engaged in the study of evolution from whatever standpoint it may be viewed. The author has treated the subject as a comparative anatomist, but in addition thereto, most instructive and suggestive material is to be found recorded in connection with comparative physiology, pathology and bacteriology. The work is done by an anthropologist of no mean order, and the material which has been employed has been collected from very diverse sources. The illustrations are numerous, and the book is written in a style which is at once clear, concise, and most entertaining.

One would urge that the book should be widely read, as the material therein contained will prove, not only of great interest, but of very decided educational value to all who have to deal with the study of human form and function both in health and disease. A. P.

Lectures on the Pathology of Cancer. By Charles Powell White, M.A., M.D., F.R.C.S., Pilkington Cancer Research Fellow. Publications of the University of Manchester. 1908. The volume contains 83 pages, with 33 illustrations.

This monograph will be found of considerable interest and value, giving as it does much information as the result of some careful research work done by Dr. White in the laboratories of the University of Manchester. The work is wholly confined to the pathology of the disease, but so elaborated that the author has suggested the bearing which these facts have upon the indications for treatment. A very broad definition of cancer is given by Dr. White, who states that "By cancer I understand any form of malignant disease," and in his first chapter he suggests a means

of classification of tumors which would permit of this definition, so that the term is not limited to carcinoma.

The most interesting part of the monograph is that in which the author deals with the cause of cancer, and in this he has attempted to trace the life history of the cells which go to make up the tumor growth, and has studied the various influences which limit proliferation as well as the relation which the tumor has to the organism in which it grows. He further studies such influences as chronic inflammatory conditions, heredity, the influence of civilization, sex, age, and site. In his final chapter the author has dealt with the principles of treatment based on his pathological investigations. The statement he makes in his chapter on treatment as the result of his study shows that little progress has been made beyond the point reached many years ago in the treatment of malignant tumors. The statement referred to is in the paragraph which we here quote:

"When the case is operated upon early enough to allow of complete removal, we have a fair prospect of complete cure. When, however, it has gone beyond the limits of surgical operation the prospects are at present almost hopeless. Surgery and medicine can still do much in the way of palliative measures, but we know of no remedy which will effect a cure."

This thesis will be found interesting to both pathologists and practitioners, dealing, as it does, with a difficult subject in which all classes of the profession are so intensely interested. A. P.

Therapeutics of Circulation. Eight lectures delivered in the spring of 1905 in the Physiological Laboratory of the University of London. By Lauder Brunton, Kt., M.D., LL.D. (Aberd.), F.R.C.P., F.R.S. Consulting physician to St. Bartholomew's Hospital. Published under the auspices of the University of London with 240 illustrations. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut street, 1909.

These lectures by Sir Lauder Brunton are very interesting and eminently practical. The writings of this author are so well known and so much appreciated that it is not necessary to go into any detailed review of this book, but simply to state that it will be found of the same practical value to members of the profession as former writings from his pen, such as his book on "Disorders of Assimilation, Digestion, etc." and "The Action of Medicines." Dr. Brunton has the faculty of utilizing his skill as an experimental physiologist for the purpose of demonstrating the relationship which should obtain between physiological function and the principles should guide us in the treatment of disease. This monograph, a book of 280 pages, is full of practical suggestions in connection with such subjects as The Blood Pressure, The

Condition of the Circulation during Shock, and Various Disturbances of the Circulation in Angina Pectoris and Raynaud's Disease.

He further discusses the use of massage and the value of various drugs in disturbances of the circulation. The author deals also with the effect of nicotine upon the blood pressure and cardiac action, and concludes that "smoking in moderate doses does not seem to be injurious to grown-up people, but there appears to be a general consensus of opinion that it is very distinctly harmful to growing lads." The book throughout is replete with the record of interesting observations and practical suggestions. A. P.

Saunders' Question Compends. "Essentials of Bacteriology." By M. V. Ball, M.D., formerly Instructor in Bacteriology at the Philadelphia Polyclinic. Sixth edition, thoroughly revised. 12mo volume of 290 pages, with 135 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, $1.00 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

The scope of this subject is broadening so quickly that we are not surprised at having another edition of this useful little work presented to us for review so soon.

We find it constructed pretty much on the same lines of the previous editions, viz., it claims to be an introduction to Bacteriology; to contain the essentials of larger works, and to serve as a guide in the laboratory of the student, clinician, and the sanatarian. These claims are fully justified in this edition of the work. W. H. P.

Third Scientific Report of the Investigation of the Imperial Cancer Research Fund. Under the direction of the Royal College of Physicians of London and the Royal College of Surgeons of England. By Dr. E. F. Bashford, General Superintendent of Research, and Director of the Laboratory. Published by the authority of the Executive Committee. London: Printed and published by Taylor and Francis, Red Lion Court, Fleet Street, E.C. 1908.

This large volume, containing 484 pages with numerous illustrations, constitutes a short scientific report from the Imperial Cancer Research Laboratory, which is under the direction of Dr. Bashford. It is quite impossible in a short notice of the work, to do justice to the volume under review. It represents the results of the indefatigable labor of a number of investigators, who have contributed most interesting facts, which have been established in their laboratory investigations.

Such intensely interesting subjects as the transplantation of malignant growths experimentally carried out in animals, and the results of surgical interference in such cases, are detailed in various experiments in mice. Reports of a large amount of experimental work in animals have been carefully recorded, and whilst the paper is largely of purely scientific value, yet attempts have been made to correlate the results obtained, and to apply conclusions to the principles which should guide the practitioner in the treatment of cancer in the human subject.

The study of statistics has led the author to the conclusion that "the frequency of cancer as a cause of death is so great that few families of large size escape."

Nothing but praise can be said for the magnificent way in which this report is put together. It does, indeed, require special genius for one to compile such a volume, which is replete with an enormous collection of facts derived from careful scientific investigation. The report is beautifully illustrated by numerous drawings and photographs. A. P.

A Text-book of Operative Surgery. Covering the surgical anatomy and operative technic involved in the operations of general surgery. Designed for practitioners and students. By Warren Stone Bickham, M.D., Phar. M., Junior Surgeon, Touro Hospital, New Orleans; late Surgeon to Manhattan State Hospital, New York; late Assistant Instructor in Operative Surgery, College of Physicians and Surgeons, (Columbia University), New York; late Instructor in Surgery, New York Post-Graduate Medical School and Hospital; late Instructor in Surgery, New York Polyclinic Medical School and Hospital; late Visiting Surgeon to Charity Hospital, New Orleans; late Demonstrator of Operative Surgery, Medical Department, Tulane University of Louisiana, New Orleans; Fellow of the New York Academy of Medicine, etc. Third edition, greatly enlarged, containing 854 illustrations. Philadelphia and London: W. B. Saunders Company. 1908.

This is the third edition of this well-known work, and opportunity has been taken to greatly enlarge it, and add many new illustrations which much increase its usefulness. The author having in mind, as he says, the great haziness with which final-year students and many practitioners view their general and applied anatomy, has adhered to a rigid system in writing his book, in which the anatomical features play a very prominent and bulky part. For instance, he takes the subject of operation upon each organ or group of tissues up under the following heads, viz.:

1. Surgical Anatomy; 2. Surface Form and Landmarks; 3. General Surgical Considerations; 4. Instruments used.

Much of the matter under the first two headings might be omitted from a work of this description, since it is all so fully found in our text-books of Anatomy. So much space having been devoted to this aspect of the subject, the clinical side has been almost completely neglected. So that the book will be found exceedingly useful to the student or graduate who is going up for higher degrees or post-graduate work, but for the man in actual practice it will be found necessary to supplement it largely.

In some smaller details, also, greater accuracy might have been achieved. Thus in excision of the shoulder, the old operation of complete removal of the rotators and sawing the bone through the surgical neck is described, while in amputation of the breast, he says "The arm is carried across the chest," instead of abducting it, as is now generally done.

The author admits that he has omitted certain operations, especially those of special surgery, but in describing two methods of entering the maxillary antrum, he might reasonably have described the operation of puncture or removal of part of the inner nasal wall. The description of arthrectomies is also very meagre.

However, the book is an excellent one, and well worthy a place among the best works of a surgeon's library. H. A. B.

An Index of Treatment by Various Writers. Edited by Robert Hutchison, M.D., F.R.C.P., Physician to the London Hospital, and Assistant Physician to the Hospital for Sick Children, Great Ormond Street; and H. Stansfield Collier, F.R.C.S., Surgeon to St. Mary's Hospital; Joint Lecturer on Surgery in St. Mary's Hospital Medical School; Surgeon to the Hospital for Sick Children, Great Ormond Street. Fourth edition. Bristol: John Wright and Sons, Ltd.; London: Simpkin, Marshall, Hamilton, Kent & Co., Limited; New York: William Wood & Co. 1908.

The Index of Treatment, which bears a considerable resemblance to the International Medical Annual, is composed of articles describing the treatment of all diseases medical and surgical. The management of labor complicated or not complicated is not described. It is arranged alphabetically, but there is a supplementary index. The more elaborate surgical operations are not described, but non-operative treatment, emergency work and minor surgery are fully dealt with.

There are seventy-nine authors, but in spite of the diversity of names, one does not recognize any marked differences in style.

The style is simple and incisive, showing that the authors have learned to condense their statements without becoming obscure. Many of the names of the authors are familiar to readers of the English and Scotch medical journals. There are 53 illustrations. The editors deserve to be complimented on the good appearance and completeness of their fourth edition, which deserves a large patronage. J. J. C.

The Causation of Sex. A new theory of sex based on clinical materials, together with chapters on The Forecasting of the Sex of the Unborn Child, and on the determination or production of sex at will. By E. Rumley Dawson, L.R.C.P., London; M.R.C.S., England, Fellow of the Royal Society of Medicine, late member of the Council of The Obstetrical Society of London, formerly resident Obstetric House Physician to the Westminster Hospital. With twenty-one illustrations. London: H. K. Lewis, 136 Gower St., W. C. 1909.

Mr. E. Rumley Dawson has ventured to place this small book before the profession only "after prolonged and careful study." His subject is undoubtedly a most difficult one, and one that has mastered most scientists up till the present date. A great many have looked upon The Causation of Sex as an almost unsolvable problem, and it is to the credit of the author of this book to have opened the subject and placed before the profession clinically facts that pretty well establish his contentions.

Surgical Diseases of the Abdomen with Special Reference to Diagnosis. By Richard Douglass, M.D., formerly Professor of Gynecology and Abdominal Surgery, Medical Department, Vanderbilt University, Nashville; Ex-President of the Southern Surgical and Gynecological Association: Fellow of American Association of Obstetricians and Gynecologists; Member of the British Gynecological Association, etc. Illustrated by 20 full page plates. Second edition, revised and enlarged. Edited by Richard A. Barr, B.A., M.D., Professor of Abdominal Surgery, Medical Department, Vanderbilt University; Late Major and Surgeon, First Tennessee Infantry, U. S. Volunteers. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut street. 1909.

The first edition of this work appeared in 1903, and in the present book there have been made only the necessary alterations which were required to bring the subject up to date. This edition is edited by Dr. Robert A. Barr of the Vanderbilt University, and his work has been well done. One special advantage of the method he has employed is that the reader is supplied with a very complete bibliography as an appendix to each chapter. The

author does not attempt to deal in detail with the technique of various operative procedures, but his object in writing a book is to consider the various surgical conditions of the abdomen as subjects for study from the standpoint of pathology and diagnosis. The principles of treatment are suggested, and the post-operative methods of dealing with the case carefully described.

Without any detailed analysis of the work done, one may say that it is an admirable guide to the surgery of the diseases of the abdomen, and is obviously compiled by an author who has utilized to the full his powers of accurate observation and skilful treatment. A. P.

Constipation and Intestinal Obstruction. By SAMUEL G. GANT, M.D., LL.D., Professor of Diseases of the Rectum and Anus in the New York Post-Graduate Medical School and Hospital. Octavo of 559 pages, with 250 original illustrations. Philadelphia and London: W. B. Saunders Company. 1909. Cloth, $6.00 net; half morocco, $7.50 net. Canadian agents, J. A. Carveth & Co., Limited, Toronto.

The author in this book emphasizes the drugless management of constipation and obstipation (intestinal obstruction), something in connection with which he claims to have met with considerable success. He feels, and properly so, that sufficient attention has not been paid in the treatment of this condition to bodily movements, massage, mechanical vibration and electricity. Dr. Gant also points out the indications for the employment of non-medicinal measures to be used in the treatment of constipation, describing the technic of their application. His book throws a great deal of light upon a subject that has been touched upon too little by medical authors, and deserves a nice reception.

Primary Studies for Nurses. A Text-book for First Year Pupil Nurses. By CHARLOTTE A. AIKENS, formerly Superintendent of Columbia Hospital, Pittsburg, and of the Iowa Methodist Hospital, Des Moines. 12mo of 435 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1909. Cloth, $1.75 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

In her "Primary Studies for Nurses" Miss Aikens has published a book that will undoubtedly find a place on the book-shelf of many nurses starting their course in study. There are a number of books which have been published during the past few years for the use of nurses; but Miss Aikens' book seems to us to fill a want that is not supplied by other books on a similar subject. The book is divided into seven sections under the following headings:

Anatomy and Physiology, Hygiene, Bacteriology, Therapeutics and Materia Medica, Dietetics, Invalid Cookery and Questions for Self-examination and Review. The section that occurred to us as being perhaps more useful than any other is that devoted to Invalid Cookery, covering between sixty and seventy pages. We would commend this section particularly, as too much stress cannot be laid upon the proper teaching of Invalid Cookery to nurses, far to many of whom have altogether too little knowledge of this important subject. W. A. Y.

Text-Book of Diseases of the Nose, Throat and Ear, for the use of Students and General Practitioners. By Francis R. Packard, M.D., Professor of Diseases of the Nose and Throat in the Philadelphia Polyclinic Hospital, and College for Graduates of Medicine; Aurist to the out-patient department of the Pennsylvania Hospital. Philadelphia and London: J. B. Lippincott & Company.

This is one of the best of the many new books that have recently been issued. The author has endeavored to make his work one that appeals to general practitioners, and he has succeeded. The illustrations are good and well selected. The subjects are treated thoroughly, and while every remedy used is not necessarily mentioned, those that are referred to are the ones Packard himself has found of value. The book may be recommended as of value to general practitioners and students. The printing and general make-up of the volume is first-class. P. G. G.

Operations upon the Uterus, Perineum and Round Ligaments. By W. J. Stewart McKay, M.B., M.Ch., B.S.C., Senior Surgeon Lewisham Hospital for Women and Children, Sydney; member of The Royal Society of Medicine, London. London: Balliere, Tindall & Cox, 8 Henrietta St., Covent Garden. 1909.

This is undoubtedly a splendid book. It consists of about 450 pages, of which 148 are plates. Dr. McKay's work gives undoubtedly the best series of half-tone plates showing operations upon the uterus, etc., that have yet come under our notice. Typographically, the book is a credit to any firm of publishers, and will ornament the shelves of the best medical library, private or otherwise. The book contains eight chapters dealing with the following subjects: Chapter one, Anatomical Points—Mechanism of Lacerations—Treatment of Recent Tears. Chapter two, Lawson Tait's Perineorrhaphy. Chapter three, Operations for Relaxed Outlet. Chapter four, Cystocele. Chapter five, Rectocele. Chapter six, Operations on the Lacerated and Hypertrophied Cervix.

Chapter seven, Displacements of the Uterus. Chapter eight, Curettage of the Uterus. Chapter nine, Dysmenorrhea.

Though the book undoubtedly deserves it, lack of space alone presents us from quoting a list of its splendid illustrations. We question if any better medical illustrations have been executed and reproduced up to the present date. Each and every plate is a study in itself. The book amounts to nothing short of an atlas, and should find a large and ready sale. W. A. Y.

A Dictionary of Medical Treatment. For Students and Junior Practitioners. By Arthur Latham, M.A., M.D., Oxon., M.A., Cantab., F. R. C. P., Lond. Physician and Lecturer on Medicine at St. George's Hospital, Senior Assistant Physician to the Brompton Hospital for Consumption and Diseases of the Chest. Philadelphia: P. Blakiston's Son & Co. 1908.

This work should prove of great value, as it was especially intended to do, to fourth year students and young practitioners. It is arranged in alphabetical order allowing of ready reference. Simply general lines of treatment are given, the extent of the work not permitting of more. Some treatments not touched on in most medical textbooks are taken up, such as the Schott-Nauheim Treatment, Fränkel's Exercises, and Artificial Feeding of Infants, and are most interesting. The author's position as physician at the famous St. George's Hospital, and at the Brompton Hospital for Consumptives, gives him ample opportunity for thoroughly testing the lines of treatment advised.

The "Nauheim" Treatment of Diseases of the Heart and Circulation. By Leslie Thorne Thorne, M.D., B.S., Durham; M.R.C.S., Eng.; L.R.C.P., Lond.; Consulting Physician (in London) to the St. John's House of Rest, Mentone; late Medical Examiner, London County Council Technical Education Board. Third edition. London: Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden, 1909. (All rights reserved.)

This work has been written and published with the idea of giving the general practitioner a chance to prescribe or administer, where necessary, the baths and exercises which constitute the routine "cure," as practised for many years with such great success at the famous German watering-place, Nauheim.

Certain changes in the chemical constitution of the baths have been found necessary on account of the differences in climate. In this work are found complete instructions for the preparation and administration of the baths, as suited to the climate of England.

The physiological action of the baths and graduated exercises

which constitute the treatment are carefully dealt with. Many interesting cases are cited, with particulars. The author also gives a chapter on the selection of cases which will be found to react satisfactorily.

It is a well bound, carefully written little work of 94 pages, with 58 illustrations. Giving, as it does, in such concise form, the details of this justly famous "cure," it may be safely said that the profession at large will gain by its careful perusal.

W. J. W.

Practical Points in Anesthesia. By FREDERICK EMIL NEEF, B.S., B.L., M.L., M.D., New York. Price, semi-de-luxe cloth, 60 cents, postpaid. Library de luxe oooze flexible leather, $1.50, postpaid. Surgery Publishing Co., 92 William St., New York.

This little book of some fifty pages has been read by us with considerable pleasure. The subject undertaken is one of which altogether too little is known, especially by students, and also by many graduates. The author has brought together in small compass many valuable points in anesthesia, describing first the apparatus which he has found most convenient and efficient, and from that carries the reader quickly, but clearly, through the course of the ordinary anesthetics, touching on complications which arise, and their most efficient treatment. The subject is not gone into minutely, but the principal points are condensed in this brief work which can be read in a short time, and which should prove of great benefit, both to undergraduates and also to those in their early years of practice.

Vaccination. By CHAS. A. HODGETTS, M.D., L.R.C.P., London, Chief Health Officer of Ontario; Deputy Registrar-General, Ontario; Member and Secretary Provincial Board of Health, Ontario; Member Royal Sanitary Institute; Fellow Royal Institute of Public Health. Second revised edition. Toronto: Printed by L. K. Cameron, Printer to the King's Most Excellent Majesty, 1908.

"Future nations will know by history only that the loathsome smallpox has existed and by you has been extirpated."—James Jefferson in a letter to Jenner.

"Vaccination should be a passport of entrance to the public schools, to the voters' booth, to the box of the juryman, and to every position of duty, privilege or honor granted either by the state or by the nation."—James Nevins Hyde.

Such words as above, from the pen of such men as Thomas Jefferson and James N. Hyde, we find on the title page of this little book, and should in themselves prove a sufficient answer to

those members of the Board of Education in Toronto who were asinine enough to vote against enforced vaccination in our public schools a year or more ago. Such men have more right to dwell with Governor Chambers across the Don than occupy positions of public trust.

Dr. Hodgetts is to be congratulated upon this booklet. It is full of valuable and practical material, scientifically written, splendidly printed and freely illustrated. W. A. Y.

The Surgery of the Ear. By Samuel J. Kopetzky, M.D., Attending Otologist Children's Hospitals and Schools, etc., New York City. Illustrated with sixty-three half-tone and line drawings, and eight charts and four colored plates. New York: Rebman Co., 1123 Broadway.

Ear work is progressing rapidly of recent years, and this with the amount of new work that has been introduced makes it necessary that the ear should appear separate from the nose and throat.

The author has endeavored to give in a comparatively small form some methods that have been fully tested. He has not permitted himself to be carried away by any fads or fancies with which literature now so profusely abounds, nor does he appear to be carried away by the lust for operations. In a book, however, devoted solely to the surgery of the ear one would have expected to find a little more on the surgery of the labyrinth.

The book is well illustrated and contains most of the sound procedures in the aural surgery of to-day. P. G. G.

Surgical Diseases of Children. A Modern Treatise on Pediatric Surgery. By Samuel W. Kelley, M.D., Professor of diseases of Children, Cleveland College of Physicians and Surgeons; Surgeon in Chief, Holy Cross Home for Crippled Children; Pediatrist St. Luke's Hospital and City Hospital: Pediatrist and Orthopedist St. Clair Hospital; President of Section on Children, American Medical Association, 1901; President of Association of American Teachers of Diseases of Children, 1908; Member of Association of Military Surgeons of the United States. 765 pages. New York: E. B. Treat & Co. 1909.

We look on this volume as one of marked improvement on any former publication. Dr. Kelley has carefully abstained from introducing any more medicine into the various subjects than he could help, thereby excluding a vast amount of unnecessary padding and trespass upon the field of the physicians. The straight practical manner of describing the various diseases dealt with, discloses the work of a man of large experience, and

one who has had a rare fund of material to work on. It is thoroughly up-to-date, the very latest ideas upon serum diagnosis and treatments, vaccine therapy, opsonic indices, etc., being given thoroughly.

The general surgeon or orthopedic specialist as well as the family physician or pediatrist will find this work an excellent reference hand-book. The book is well printed and the general style of illustrations is very fair. A. B.

Diseases of the Digestive Canal (Esophagus, Stomach, Intestines). By Dr. Paul Cohnheim, Specialist in Diseases of the Stomach and Intestines in Berlin. From the Second German edition, edited and translated by Dudley Fulton, M.D., Lecturer on Medicine, University of Southern California, Los Angeles. Illustrated. Philadelphia and London: J. B. Lippincott Company.

This is a translation from the second German edition. It is a work of 373 pages, including the index; there are 334 illustrations and an appendix, with table to assist in diagnosis without a test breakfast, and dietetic treatments in the various diseases.

The size of the work has been kept down by excluding physiological, pathological and anatomical subject-matter. The author has confined himself to the practical course given by him for years in his polyclinic. In this way the work is rendered very practical and calculated to help the busy general practitioner. The methods of diagnosis are full and satisfactory and the treatment more complete than in many of the larger works. We can safely recommend this little book to our friends. W. J. W.

Saunders' Pocket Medical Formulary. By William M. Powell, M.D., Author of "Essentials of Diseases of Children." Containing 1831 formulas from the best known authorities. With an appendix containing Posologic Tables, Formulas and Doses for Hypodermic Medication, Poisons and their Antidotes, Diameters of the Female Pelvis and Fetal Head, Obstetric Table, Diet-lists, Materials and Drugs used in Antiseptic Surgery, Treatment of Asphyxia from Drowning, Surgical Remembrancer, Tables of Incompatibles, Eruptive Fevers, etc., etc. Ninth edition, adapted to the 1905 Pharmacopeia. Philadelphia and London: W. B. Saunders Company. 1909. In flexible morocco, with side index, wallet and flap, $1.75 net. Canadian agents: J. A. Carveth & Co., Limited.

The ninth edition of Saunders' Medical Formulary reached us recently. In looking it over, we find it is a considerable improvement upon its predecessor, and has been enlarged to some extent.

This little book contains quite a valuable collection of prescriptions which will doubtless prove of considerable value to the busy physician. It also contains a dose table, a list of incompatibles, the average weight of the different organs of the body, a list of useful gargles, the doses of drugs for atomization and inhalation, the dates of eruption of the different teeth, a list of the eruptive fevers, and a useful chapter entitled "Surgical Remembrancer." The book will be found of considerable use in daily practice.

W. A. Y.

Operative Nursing and Technique. A book for Nurses, Dressers, House Surgeons, etc. By Chas. P. Childe, B.A., F.R.C.S., Eng., Senior Surgeon, Royal Portsmouth Hospital. London: Bailliere, Tindall & Cox, 8 Henrietta St., Covent Garden. 1909.

Dr. Childe's little volume on Operative Nursing is full of exceedingly practical material, and should be found more than usually helpful to the nursing profession, especially those just entering upon their duties. The volume consists of seven chapters in all, and covers the following subjects: The Modern Surgical Nurse. Antisepsis and Asepsis in Operative Surgery. The Patient in the Ward before Operation, Duties of the Ward Sister, Nurses, Dressers, etc. The Patient in the Theatre, Duties of the House Surgeons, Theatre Sisters, Nurses, etc. The Patient in the Ward after Operation, Duties of Ward Sisters and Nurses. The Selection of Instruments, etc., for Operation. Operations in Surgical Homes and Private Houses. The book does not contain any information on nursing generally, but deals with the one subject of Surgical Nursing, that allied with Operative Surgery. The volume is the outcome of a series of lectures delivered to the nurses of the Royal Portsmouth Hospital.

Parsimony in Nutrition. By Sir James Crichton-Browne, M.D., LL.D., F.R.S., Lord Chancellor's Visitor in Lunacy, London. London and New York: Funk & Wagnalls Company. 1909.

This is the revised and expanded address to the Section of Preventive Medicine at the meeting of the Royal Institute of Public Health at Bexton, England, in July, 1908.

This work is a protest against the present-day tendency to reduce the proteids in our dietary to a minimum. It deals with the Fletcher "chewing" theory and the going without breakfast fad, and shows that both the ancient Greeks and the most advanced peoples of the present day have not unduly restricted their animal dietary. The dietary standards of Voit and Chittenden are compared, and while that of Voit fits in very well with the

amounts of food used as a matter of experience by the various races of mankind, the Chittenden standard is said to be too low. While the athletes and soldiers on whom Chittenden experimented seemed to thrive on this low proteid, the prisoners in the British prisons suffered severely from hunger on a somewhat stronger diet, and it was found necessary, after a full Government inquiry, to feed them very much better.

The author holds that long enough time has not elapsed to decide the effects of a reduced dietary, and thinks in time it would result in disaster. W. J. W.

The Semi-Insane and the Semi-Responsible (Demifous et Demi-responsables). By Joseph Grasset, Professor of Clinical Medicine at the University of Montpellier; National Member of the French Academy of Medicine, and Laureate of the Institute. Authorized American edition. Translated by Smith Ely Jelliffe, M.D., Ph.D., Clinical Professor of Mental Diseases, Fordham University, N.Y.; Visiting Neurologist, City Hospital, New York. New York and London: Funk and Wagnalls Company. 1907.

This most interesting book on a most interesting subject appears now in English.

The question of the responsibility of the criminal, and the different methods in which he should be treated, if insane, has been a subject on which a great deal has been written, but the dividing line between sanity and insanity is so indefinite in many cases, that lawyers and doctors seem very often to get at cross purposes. Medical men are apt to estimate insanity from the scientific standpoint, but the lawyer estimates responsibility in cases of insanity as being defined by the statute, and so we have "medical insanity" and "legal insanity," and accordingly endless differences of opinion.

This book is calculated to demonstrate the fact that the trial judge, together with the medical expert, decides not only what is to be done with the accused criminal who is entirely responsible, or to the accused criminal who is entirely irresponsible; but also what is to be done with the criminal who is partially responsible, and who unfortunately most frequently needs to have his actions adjudicated upon. In this medium position is the accused criminal who has an "attenuated responsibility." He is the person who should be placed successively in a prison and in a hospital, as he ought to be both punished and treated. The subject is one which treats of a vast number of people who are more or less responsible for their acts according to the amount of insanity that enters into their mental makeup. This is a very difficult subject to deal with, from the fact that many people might

think, from this book, that everybody is a little crazy, and therefore that it is unnecessary to trouble oneself to make these fine distinctions. But criminals are not all equally responsible or irresponsible, and no hard and fast rule can be applied to all alike. This book makes excessively interesting reading, because of the viewpoint of the author. He deals with the semi-insane in such a variety of positions: those in literature and on the stage, those in society, and their social value. There are chapters also on the refutation of the doctrines which deny the existence of the semi-insane, followed by clinical proofs of the existence of this condition, constituting a medical study. There is a long article on the rights and duties of society towards the semi-insane, and lastly, semi-responsibility, together with the consideration of all that that term opens up.

To judges and lawyers, as well as to medical men, this book will be of intense interest. A. J. J.

A Text-Book of Genito-Urinary Diseases. Including Functional Sexual Disorders in Men. By Doctor Leopold Casper, Professor in the University of Berlin. Translated by Charles W. Bonny, B.L., M.D., Associate Demonstrator of Anatomy, Jefferson Medical College, Philadelphia. P. Blakiston's Son & Co., Philadelphia, Pa.

The work, as the title indicates, deals with diseases of the bladder, kidneys, ureters, urethra, testicles and seminal vesicles. Methods of examination and diagnosis are very clearly set forth. The chapters on cystoscopy, urethroscopy and the use of the urinary segregator are very complete and well illustrated. So also with the chapter devoted to diseases of the prostate. The various operative procedures for removal of the prostate gland are clearly described and illustrated. The work contains excellent chapters dealing with tuberculous disease of the bladder and kidneys. Taken as a whole the book seems to be quite abreast with the latest advances in the diagnosis and treatment of the various disorders of the genito-urinary system.

Mind and Its Disorders. By W. H. B. Stoddart, M.D., F.R. C.P. London: H. K. Lewis, 136 Gower Street, W.C. 1908.

In his book, "Mind and Its Disorders," the author has well succeeded in his object—that of providing the student and practitioner with a succinct account of our existing knowledge of mental diseases.

The work is based on the author's own observations, extending over a period of twelve years of careful clinical research into the nervous phenomena associated with mental disorders; to which Dr. Stoddart has added freely—as he states himself—the

knowledge gained and published from time to time by other neurologists, his aim being—as stated before—to deal with his subject as completely and thoroughly as possible. He has succeeded very well.

Realizing the importance of possessing a thorough knowledge of what is, or may be, normal, before attempting to study, or discuss to any extent, the signs of the abnormal, the author commences with an excellent description of Normal Psychology; following this he deals with the Psychology of the Insane and finally discusses Mental Diseases.

The arrangement here is very satisfactory, especially from the standpoint of the student, and the author deserves great credit for it.

The book is freely and excellently illustrated, and is suitably bound. The publisher, H. K. Lewis, has succeeded very well with this edition. D. C. M.

Personal Hygiene in Tropical and Semi-Tropical Countries. A popular manual, written for the use of foreigners residing in the Philippines, Cuba, and other portions of the Tropics. By Isaac Williams Brewer, M. D., Member of the American Society of Tropical Medicine. Philadelphia: F. A. Davis Company, Publishers.

Owing chiefly to the exigencies of modern commerce it has become necessary for many business men from northern countries to sojourn in the Tropics. For the enlightenment of such this Manual of Hygiene is invaluable, and will be the means of spreading scientific knowledge of the conditions of life in warmer climates.

Differences in temperature and atmospheric conditions are carefully dealt with. The sections on clothing, water supply, foods, dwellings, disposal of excreta and waste are especially interesting, and are followed by others on the commoner tropical diseases and their treatment.

Be he professional or layman, anyone contemplating a tropical cruise will find this manual invaluable.

Principles and Practice of Physicial Diagnosis. By John C. DaCosta, Jr., M.D., Associate in Clinical Medicine, Jefferson Medical College, Philadelphia. Octavo of 548 pages, 212 illustrations. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, $3.50 net. Agents for Canada: J. A. Carveth & Co., Limited, Toronto.

Dr. DaCosta is engaged in teaching clinical medicine, and his book describes, with other related data, the instruments of precision and the methods of research he recommends to students in

the study of normal and abnormal thoracic and abdominal anatomy. Due credit is given for information obtained from authorities engaged in similar work.

Physical diagnosis reposes on a knowledge of surface and deep anatomy, with recognition and correct interpretation of changes caused by disease. It is a study in topography; the thorax or abdomen of the patient becomes, for the time, a sort of map, which reveals normal and abnormal states of parts or organs to the watchful eye. Added to this is the knowledge acquired through the senses of touch and hearing, and when a logical mind interprets the facts derived from all these different avenues of information, an exact diagnosis is reached.

Many of the clinical conditions described in this book are illustrated from photographs of hospital patients. Those showing pathological conditions from model-studies and figures standardized to Cunningham, sphygmograms and cardiograms, supplied by skilled co-operators. A creditable performance, it merits a large patronage by students and physicians. J. J. C.

Practical Dietetics: With reference to Diet in Disease. By Alida Frances Pattee, graduate, Department of Household Arts State Normal School, Framingham, Mass.; Late Instructor in Dietetics, Bellevue Training School for Nurses, Bellevue Hospital, New York City; former instructor at Lakeside, St. Mary's, Trinity, and Wisconsin Training School for Nurses, Milwaukee, Wis.; St. Joseph's Hospital, Chicago, Ill.; Special Lecturer at Bellevue, Mount Sinai, Hahnemann, and the Flower Hospital Training Schools for Nurses, New York City; St. Vincent de Paul Hospital, Brockville, Ontario, Canada. Fifth Edition. A. F. Pattee, Publisher, Mount Vernon, New York, 52 W. 39th St., New York.

It is but five years since we received the first edition of Miss Pattee's excellent book on Practical Dietetics, and since that date, it has run through five separate and distinct editions. This, perhaps, proves that the book is of considerable value, and has been appreciated by its readers. Though, perhaps, the additions made to the fifth edition are but few in number, the book as a whole is one to be recommended to nurses generally. We understand that it has been accepted by a large number of the hospital authorities of the United States Army, and been also recommended for use by several state boards of examiners of nurses. In Canada it has been adopted by the military authorities for use in the permanent schools of instruction, so that the authoress has every reason to feel gratified. The fifth edition consists of about three hundred pages, and will be found to contain a great fund of information regarding the subject of diet, foods for the

sick room, etc., etc. A book of this kind is undoubtedly needed in many of our Canadian hospitals, *where far too little attention is paid to the subject of invalid cooking,* something that is just as important in the treatment of patients as a knowledge regarding wounds, etc.

Bacterial Food Poisoning. A Concise Exposition of the Etiology, Bacteriology, Pathology, Symptomatology, Prophylaxis and Treatment of So-called Ptomaine Poisoning. By Prof. Dr. A. Dieudonne, Munich. Translated and edited, with additions, by Dr. Charles Frederick Boldman, Bacteriologist, Research Laboratory, Department of Health, City of New York. Authorized translation. New York: E. B. Treat & Company. 1909. Price, $1.00.

This work is one of more than usual interest. Bacterial food poisoning is very common, and there is no doubt more of it than we at present recognize. The author divides the meat poisoning into three classes, viz., (1) Poisoning due to eating the meat of diseased animals, and usually associated with the bacillus enteritides or bacillus paratyphi. (2) From eating putrefied meat, and usually associated with bacillus proteus and bacillus coli. (3) Due to sausage poison, and produced by the anerobic bacillus botulinus. Besides meat poisonings, poisonings due to fish, cheese, cream and puddings, potato, canned goods and metallic substances are given separate chapters. The symptomatology, prophylaxis, bacteriology and treatment are given.

We are delighted with the little work and think it should be read, not only by all medical men, but also by teachers of domestic science and those in charge of restaurants and diet kitchens.

W. J. W.

Proceedings of the Royal Society of Medicine. Vol. II., No. 4, February, 1909. Longmans, Green & Co., 39 Paternoster Row, London; New York, Calcutta, Bombay. Price, seven shillings and sixpence net. All rights reserved.

The February volume of the Proceedings of the Royal Society of Medicine contains the following sections: Anesthetics, Study of Disease in Children, Clinics, Dermatological, Electro-Therapeutical, Epidemiological, Laryngological, Medicine, Neurological, Obstetrics and Gynecology, Odontological, Pathology, Surgery, and Therapeutical and Pharmacological. Under the section for "The Study of Disease in Children" we find four articles from the pens of such authors as Drs. David Forsyth, T. R. Whipham, J. Porter Parkinson and A. J. Jex-Blake. The article by Dr. Whipham is splendidly illustrated with half-tones of different conditions of the kidney, both externally and on section. Figure

three, showing a section of the right kidney and countless minute cysts, is one of the best specimens of this condition we have seen in a long time. The article by Dr. J. Porter Parkinson on "Rheumatoid Arthritis in Children" is also illustrated and is well worthy of careful perusal. Under the Dermatological Section we find articles by Drs. J. L. Bunch, G. W. Dawson, E. J. Graham Little, J. H. Sequeira, A. Whitfield and G. Norman Meachen. Under the Obstetrical Section there is a capital article by Mrs. Stanley Boyd, M.D., her article being perhaps more than usually interesting on account of women physicians contributing but seldom to the pages of a medical publication.

Appendicitis and other Diseases of the Vermiform Appendix. By Howard A. Kelly, M.D. With 215 original illustrations, some in colors, and three lithographic plates. Philadelphia, Montreal and London: J. B. Lippincott Company.

The appearance of Dr. Howard A. Kelly's work on appendicitis has been looked forward to for some little time past. We have already taken occasion to say in this Journal in past years that any book from the pen of such an author as Dr. Howard A. Kelly would receive a very hearty reception by the medical profession throughout Canada. Dr. Kelly has undoubtedly made a place for himself in the surgical world and he deserves all the praise thus far meted out to him.

This book is undoubtedly a credit, not alone to the author, but to the publishers as well. It is printed upon beautiful plate paper, the half-tone illustrations and the illustrations in color being splendid reproductions. We have rarely had the pleasure of seeing quite as good a color illustration of acute appendicitis as that appearing on the frontispiece. This place shows (a) Acute Appendicitis, (b) Chronic Appendicitis, (c) Mild Acute Catarrhal Appendicitis, (d) Typhoid Appendix.

The book covers in all about five hundred pages, and is divided into twenty-five chapters as follows: History, Anatomy of the Vermiform Appendix, Physiology, Bacteriology, Pathology, (four chapters), Etiology, Clinical History, Diagnosis, the Leucocytes in Appendicitis, Appendicitis and Typhoid Fever, Appendicitis in Youth and Old Age, Typhlitis, Treatment Previous to Operation, Operative Treatment, Abscess in the Neighborhood of the Appendix, Peritonitis, Care of the Patient after Operation and Post-operative Sequelae, Appendicitis in Gynecology and Obstetrics, Neoplasms, Specific Infections of the Appendix, Hernia of Appendix, Medico-legal Aspects of Appendicitis.

We heartily commend Dr. Kelly's most recent effort.

W. A. Y.

Nervous and Mental Diseases. By ARCHIBALD CHURCH, M.D., Professor of Nervous and Mental Diseases and Medical Jurisprudence in North-Western University Medical School, Chicago; and FREDERICK PETERSON, M.D., Professor of Psychiatry, Columbia University. Sixth edition, revised and enlarged. Octavo volume of 944 pages, with 341 illustrations. Philadelphia and London: W. B. Saunders Company, 1908. Cloth, $5.00.

That this comprehensive work has already reached the sixth edition, the first one appearing in 1899, attests its merit and popularity beyond question.

The section on Neurology (650 pages) is rich in illustrations, and while complete in the elucidation of principles, it is at the same time concise; in it the more recent teachings of modern investigators in this field are presented as briefly as their importance will permit. A new chapter of much interest appears on psychasthenia, differentiating it from neurasthenia and limiting it to middle ground between nervous and mental diseases; it embraces such conditions as obsessions, phobias, impulses and kindred manifestations of defective inhibitory power.

The section on mental diseases (nearly 300 pages) includes an exhaustive review of recent problems in psychiatry prepared by Dr. Adolf Meyer, Director of the Pathological Institute of the New York State Hospitals. In this review the doctrines accepted by Kraepelin, Ziehen and Wernicke are separately examined and compared with each other in order that the reader may easily become acquainted with their individual views on psychiatrical questions. N. H. B.

THE SEAL OF THE ACADEMY OF MEDICINE, TORONTO *

In these days, when so much interest centres in the question of a pure milk supply, when not only the public, but even the Legislature are taking active steps to ensure our sick ones a pure, healthy milk, it will interest the readers of this Journal to know that up to April 1st but one Toronto dairy had secured the Seal of the Academy of Medicine.

The firm referred to are S. Price & Sons, owners of Erindale Farm, the home of "Certified Milk." This concern have always been ready and willing to take whatever steps were necessary to guarantee the delivery of pure milk to Toronto's citizens. They welcomed, rather than otherwise, the appointment of the Academy of Medicine Milk Commission, whose members for almost six months past have been subjecting to the closest scrutiny the product of the different milk depots in our city. The Commission a short time ago issued a Seal of their approval to any firm whose milk was proved to be practically free from bacteria and that contained the proper percentage of butter fat and proteids, whose cows had been tuberculin tested, and the dairies living up to other certain rules. As a proof of this, the following printed announcement appeared recently on the programme of meetings at the Academy of Medicine, which speaks for itself:

NOTICE.

> The Milk Commission of the Academy desires to advise the Fellows that the following dairy-farm is now producing certified milk conforming to the standards of the Commission:
>
> PRICE'S DAIRY, 255 QUEEN ST. EAST.
> Telephone, Main 7303.
>
> The Commission unhesitatingly recommends it to your consideration and patronage.
>
> All inquiries, suggestions or criticisms should be addressed to the Secretary, W. L. T. Addison, 9 Queen's Park.

It is indeed a matter for congratulation that a firm, which for years have concentrated their efforts to supply only the best, should be thus honored. Medical men should take notice of this, bearing in mind that any of their patients for whom they prescribe Price's Certified milk will be getting an article that is as nearly pure as it is possible to be.

*Publisher's Department.

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Original Contributions.

INFANTILE SPINAL PARALYSIS

BY B. E. M'KENZIE, B.A., M.D.

THE occurrence of several epidemics of this disease in recent years makes this time opportune for reviewing its literature, and for re-stating the salient features which mark its pathology, symptoms, signs and treatment. There was an epidemic in Europe in 1906, another in New York and New Jersey in 1907, one in the valley of the Ottawa in 1906, and in previous years several other epidemics of less extent of which I have been able to obtain reasonably accurate and detailed accounts.

Though the clinical picture of the affection had long been recognized, yet the spinal lesion on which it depends was not known till it was demonstrated by Prevost in 1865. Soon afterward further light was offered by observations made by Clark, Charcot and Joffroy. The disease is commonly seen in children, and when described by Rilliet and Barthez it was called the "essential paralysis of children." In 1858 and 1864 Vogt and Duchenne noted the occurrence of similar symptoms in adults.

Undoubtedly, it is a disease chiefly of childhood, though its occurrence even in young infants is not rare; and it is quite certain that it may occur at any age. The writer has known of two well-marked cases occurring at eighteen years.

Boys are more commonly affected than girls. It occurs more frequently in summer than in winter. It may occur in a child who in other respects has seemed up to the time of the illness to be in good health. It certainly occurs occasionally as secondary to acute febrile diseases, scarlet fever, measles, bronchitis and pneumonia.

Most important in regard to its etiology is the comparatively recent demonstration of its infectious nature. Gowers, writing in 1886, does not appear to even suspect the fact. Strümpel in Germany, and Pierre Marie in France, suggest the possibility of its infectious origin. Swedish observers, Medin, Rissler and Wickham must receive credit more than others in establishing its infectivity. Caverly also of America has done much to compel general acceptance of the infectious nature of the disease. It is true that the micro-organism to which the disease is due has not yet been isolated, although several European observers have made lumbar puncture in the course of the disease, and have claimed to have demonstrated a special meningococcus as an infective agent. Their findings, however, have been unfavorably criticised, and do not receive general acceptance.

The ground upon which rests the acceptance of its infectivity may be briefly stated:

1. Its long recognized seasonal occurrence. It was observed that in the great New York epidemic of 1907 by far the greater number of cases were seen in July, August and September. In October there was a marked subsidence of the disease. In this epidemic it was said that more cases of anterior poliomyelitis were admitted to some of the New York hospitals in three months than had been admitted in fifteen years previously.

2. Its marked occurrence in epidemics in recent years, notably the valley of the Ottawa about three years ago, in Norway in 1906, and in New York and New Jersey in 1907. The writer also has been informed of less extensive epidemics which occurred in Nova Scotia and in Alberta.

3. The occurrence of several cases in the same household. In the Ottawa valley epidemic there were several instances of three children in the same house being affected. Like facts were noted in the other epidemics.

4. Wickham in Sweden traced the disease clearly from one hamlet to another, and showed that persons who themselves escaped were the intermediaries through whom the infection was conveyed. There seems little doubt that the disease is mildly infectious. No steps, however, have been taken to isolate the patients, nor has the epidemic spread in any of the larger schools or other institutions.

Pathology.

The disease is commonly described as an acute anterior poliomyelitis. It is certain, however, that the inflammatory process is by no means confined to the cells of the anterior gray matter of the cord. Its clinical variations and the extent of the morbid process show that it may involve the whole of the gray

matter of the cord, and invade the gray matter of the medulla oblongata, and even the gray matter of the cortex.

The peripheral nerves in some instances are involved. The clinical picture presented to those who have seen many cases must lend strong probability to this statement as to the wide extent of nerve tissue involved.

Symptoms.

The opportunities for close observation afforded by the several epidemics of recent years show that the early symptoms are very similar to those of other acute infectious diseases—general malaise, fever, convulsions and headaches. These symptoms may last for several days before paralysis appears; and it is quite certain that these prodromal symptoms may be present as shown in recent epidemics, and yet no permanent paralysis follow. There are manifestly abortive forms in which the affection does not produce paralysis, or results in a paralysis quite transitory in character.

On the other hand, there is observed a small proportion of cases quite fulminant in character, proving fatal in forty-eight to seventy-two hours after the appearance of the typical prodromal symptoms. In such cases there is high fever, extensive paralysis and involvement of the lower cranial nerves. The bulbar symptoms manifested in these severe cases point distinctly to the involvement of the centres in the medulla oblongata, while ataxic symptoms point to invasion of the cerebellum, or of tracts associated with it.

Results of post-mortem examinations made in some of these cases will be set forth by the New York Committee appointed to study and collate the scientific findings adducible in the epidemic of 1907.

In a considerable proportion of cases there is a meningeal involvement, so that the initial diagnosis may well be in doubt owing to mental stupor, thickness of speech, rigidity of the neck and opisthotonos. In the Ottawa Valley epidemic it was currently stated in the lay press that the affection was cerebro-spinal meningitis. The resulting paralysis, loss of reflexes and electrical symptoms place the matter beyond doubt that the infection was that found in infantile spinal paralysis.

While it must be admitted that the manifestations of the disease go far afield, showing involvement of nerve tissues far removed from the cells of the anterior cornu of the cord, yet the results following go to show that the older conception of the disease was correct in essentials.

The fact that the early symptoms have been observed to pass away in a considerable proportion of cases or at most to cause but

a transitory paralysis, has led some recently to give a more favorable prognosis than was usually given in former times. The orthopedic surgeon is not of that number. The great majority of these patients when they seek his aid present much disability: (1) Because of paralysis; (2) because of its uneven distribution resulting (3) in numerous deformities, adding still further to the disabilities.

Treatment.

While it is true that the first accurate account of the disease was given by an orthopedic surgeon, Heine, 1840, yet it is more especially in the treatment of the after-results that the orthopedist finds his chief place in relation to this affection.

From the standpoint of the neurologist, B. Sachs in a recent article sums up the treatment as follows:

"Except as a matter of exercise, electricity is practically useless. Drugs have no effect upon the subacute or chronic stage, and surely not after the permanent paralysis has been established. Massage will no doubt improve the circulation of an affected limb, and should be encouraged as far as possible. Methodical exercises I consider of the utmost importance, but these should be conducted under the supervision of a competent person, of one who knows what can and what cannot be expected of a paralyzed limb or of a paralyzed group of muscles, and of someone who is able to note the slightest return of power in a muscle or group of muscles, is able to avail himself of that slight improvement, and when the improvement is once noticed, intelligently to encourage such movements so as to get satisfactory results. . . . I am a thorough believer in tenotomies and in transplantation of tendons, and nothing that I have seen of orthopedic work has impressed me more than the operations undertaken by the lamented Hoffa for the shortening or lengthening of tendons and muscles . . . The present conception of poliomyelitis has not only thrown new light upon the theory of the disease, and upon its pathogenesis, but has also put the duties of the orthopedic surgeon in an entirely different light. We look to him for the correction of deformities after the acute infectious disorder has run its course and has done its worst."

The peculiar asymmetry and irregularity of the distribution of the paralysis results in disabilities and deformities quite characteristic of this disease. Lack of balance in the joints of the limbs involved is peculiarly characteristic. Sometimes all the muscles controlling a joint are completely paralyzed, resulting in a flail joint; but more commonly some groups only are paralyzed or disabled by partial paralysis, while their colleagues escape or are not greatly disabled. At the ankle frequently the anterior

leg muscles are more affected than those of the calf, and there is a consequent lack of balance. The anterior muscles cannot dorsiflex the foot because overstretched by the counter-action of the calf muscles, and a condition of equinus results. Very generally the peronei muscles at the outer part of the foot are more disabled than those situated at the inner aspect, resulting in the foot being thrown unduly inward, causing varus and supination. If the inner group, whose tendons pass behind the inner malleolus, be more disabled than the peronei then we have the foot everted and a condition of pronation or valgus. Marked disablement of the calf muscles causes calcaneus. Various elemental deformities may thus combine, causing every possible variety of deformity.

Similarly the other joints may be so affected by an unequal distribution of the paralysis as to present every anomaly of position.

Emphasis should be laid upon one result which ensues when disabled muscles are permitted to be overstretched. Following the acute stage of the disease a muscle or a group of muscles, for example, the flexors, will be kept stretched, and as a consequence will be placed in a condition unfavorable for recovery. If, however, the arm be flexed acutely at the elbow, and this position maintained for some months by a fixation dressing, the flexor muscles are much more likely to regain power. Even after the lapse of some years muscles which have shown but very little tendency toward improvement will regain power rapidly when kept relaxed. This fact is capable of extensive application, and consistent attention to its import would restore to comparative efficiency, groups of muscles otherwise wholly incapable of their normal function.

It does not follow that all muscles will regain power when kept relaxed. If the large motor cells in the cord controlling a group of muscles be entirely destroyed by the inflammatory process, nothing can restore power to the muscles unless operative measures be adopted to supply them with motor nerve energy from a new source. If all the muscles governing motion at a joint be thus completely disabled, then we have a genuine flail joint.

Fortunately the upper extremity is much less frequently affected than the lower. Seeing that the functions of the upper extremity call for dexterity and actions that are precise, it is found impracticable by surgical measures to bring about restoration so satisfactorily as may be done in the lower extremity, whose functions are coarser and are fairly well performed if body weight be borne comfortably and locomotion be fairly satisfactory.

When deformities have occurred, or when the degree of paralysis is so great as to leave a flail joint, the means of surgical treatment to be adopted are:

1. Massage and physical education, that is, systematic, well-directed efforts on the part of the patient to remedy the disability.

2. Mechanical aids.

3. Direct operative measures:

(a) Tendon transposition, tendon lengthening, shortening and grafting.

(*b*) Arthrodesis.

(*c*) Nerve transposition and nerve grafting.

(*d*) Removal of skin flaps to aid in flexion.

1. As soon as the acute symptoms have passed, massage intelligently directed accompanied by manipulations designed to stretch the muscle groups tending to become unduly shortened, is helpful, and may be carried out by the mother or nurse. These efforts should be long continued and assiduously employed, and are helpful in bringing more blood to the needy muscles, thus lessening harmful contractures.

2. Mechanical aids are very varied and must be designed and used to meet the direct needs of each individual patient. Such braces employed while the patient is in bed at night are often most efficacious. The relaxed condition during sleep, the weight of the bed-clothes carrying the foot into a wrong position, continuing for so many hours, are responsible in a large degree for many of the deformities. A brace may be adapted to the needs of the patient, and correctly designed boots may accomplish the same in the daytime. The mechanical aids may have in view supplementing a short limb, maintaining the foot or leg directly under the body weight, fixing securely a disabled joint, holding the spine erect, or other purpose as indicated by the exact nature of the disability. In extreme cases crutches may have to be employed, but the resources of modern surgical art are such that probably no individual, however crippled by this disease, may not be rendered capable of voluntary motion.

3. Operative measures:

(*a*) Operations upon tendons. Nicoladoni in Italy proposed and carried out the plan of grafting energized tendons into others whose muscle had been rendered inert through paralysis. The principle of treatment thus advocated was sound, and its application has been greatly extended in the intervening years. Very briefly the object to be gained may be stated thus: In the unbalanced state of a joint the muscles not paralyzed do harm by causing deformity, hence if their action can be transferred so as to make their pull at another part where muscular traction is needed, such a transfer will help to restore balance, and consequently joint efficiency. The practice is now being employed very extensively and with such beneficial results as to entitle it to be considered a truly epoch-making advance. Its applicability is so

various, and the details are so numerous that an extensive literature has grown up in its advocacy.

(*b*) Arthrodesis: By this term is meant the fixation by operative means of a flail joint. A wobbling, disabled joint through loss of muscular control may often be rendered functionally efficient by denuding the joint surfaces till red bleeding bone is exposed, bringing these into apposition, and maintaining them in this relation until a synostosis is secured. This operation is applicable more especially to the joints of the lower extremity, though it may be usefully employed also at the shoulder. It is employed very generally in the treatment of paralytic disabilities of the foot, and meets a large demand on the part of the orthopedic surgeon.

Supplementary to the operative work done, the careful surgeon will employ suitable physical training and mechanical aids. Without such careful after-treatment relapses will often follow, and generally results will fall short of those which can be obtained if the case were followed up and kept under constant observation.

The literature of the surgical means to be employed is so extensive that no effort is made here to do other than intimate the general principles to be followed. The attached bibliography indicates but a very small proportion of the recent articles dealing with this subject.

Townsend—*American Journal of Orthopedic Surgery*, August, 1908.

Sachs, Bradford, Hunkin, Taylor—*American Journal of Orthopedic Surgery*, November, 1908.

Haynes, Zabriskie, Romeiser, Sayre, Townsend, in *Archives of Pediatrics*, December, 1908.

Jones—*British Medical Journal*, March 28, 1908.

CARIES OF THE SPINE*

BY W. E. GALLIE, M.B.,
Associate Surgeon, Hospital for Sick Children, Toronto.

THE specimen to be presented is from a case of Pott's disease of the dorsal spine which had been under treatment at the Children's Hospital. The patient presented the clinical picture of the disease for nearly three years, and was making fair progress towards recovery, but about two months ago she developed tuberculous meningitis and rapidly succumbed.

The specimen is of particular interest because it is the only one of its kind in the possession of the University Museum, and because it demonstrates so beautifully many of the interesting points in the gross pathology of the condition.

When one first examines the specimen in sagittal section, he is at once struck with the remarkable size of the kyphosis resulting from the collapse of a single vertebra. Further observation will show, however, that instead of a single vertebra being involved, three have practically disappeared. This is demonstrated by counting the number of intact bodies and subtracting from the number of spines. Ten from thirteen leaves three spines without bodies.

The mass of material representing the crushed vertebrae is very largely composed of fibrous tissue without any attempt at ossification. The destructive process has evidently ceased to advance in an upward direction, for the half body remaining above is quite hard and when fresh showed no hyperæmia. Inferiorly, however, there is still evidence of activity of the disease, as is shown by the partial absorption of the fibro-cartilaginous disc next below, and by the presence on its upper side of granulation tissue which is still to be seen in the specimen. On the whole, however, the process has reached a stage of comparative quiescence, and it is probable that no further bone destruction would have taken place.

The fact that there is no sign of calcification of the fibrous tissue which has taken the place of the destroyed vertebrae is interesting from the standpoint of treatment. After two years of comparatively efficient treatment there is no evidence of attempt at bony union, and the spine is freely movable at the area of disease. From the appearance of the specimen it seems probable that bony union would never take place even after total disappearance of the tuberculous condition. Of course, there are plenty of examples in which bony union has occurred,

*Read before Section in Pathology, Academy of Medicine, Toronto, April 27th, 1909.

but in every museum there are specimens which illustrate the fibrous method of union. This means that unless proper measures be undertaken the kyphosis of Pott's disease may keep on increasing long after the tuberculosis is cured, owing to the bowing of the spine at its point of greatest weakness. The obvious prophylaxis of this condition is to have the patient wear a spinal support of some sort for many years after the disease has subsided, and in cases in which there is a marked kyphosis it is well to have him look forward to always wearing this support. A view of the cut surface of the

FIG. 1. SAGITTAL SECTION.

specimen illustrates this point perfectly. If this patient had been allowed about in an upright attitude without a spinal support, there is nothing in the world would have prevented the deformity from increasing to a right angle or more, and this catastrophe would be as likely to occur ten years in the future, if no bony union had taken place. A conclusion which I wish to draw from this discussion is that increase in the deformity after assuming the upright attitude may not mean the renewal of the tuberculous process at all, and before returning such a patient to the rigorous treatment of the acute disease some other symptoms should be present.

The method of advance of the tuberculous process is very

nicely illustrated. The disease starts in the vertebrae as in the end of the long bones, in the region of the epiphyseal line, which in the case of a vertebra is a fine cartilaginous strip separating off a thin plate of bone at the top and bottom of the body. From here it spreads into the cancellous bone of the centre of the vertebra and towards the fibro-cartilaginous disc. The fibro-cartilage is more resistant than the bone, but if the inflammation is sufficiently severe it finally succumbs to the action of the new granulation tissue, and the disease goes on to the next vertebra. The absorption of fibro-cartilage has been pointed out as going on in the first disc below the focus, and already half the disc has disappeared, its place being taken by granulation tissue.

Besides this direct route of progression, an indirect one is sometimes taken by the process. The disease gradually works out to the edges of the body, and lifts up the fibres of the anterior and posterior common ligaments. The infection then spreads up and down, and skipping the fibro-cartilaginous discs, attacks the cancellous bone of the vertebra above and below. The specimen shows this method of advance also, under the anterior common ligament of the vertebra above, and the slight hyperæmia originally to be seen in the anterior part of the bone is still slightly preserved by the Kaiserling.

An interesting point in mechanics is presented by the fact that in this specimen the profile of the posterior border of the bodies shows a sharp angulation while the profile of the spines shows only a gentle curve. This is accounted for by the fact that several bodies have been destroyed. If a single body had collapsed there would be a sharp knuckling of the spine, but when three bodies have gone, the knuckling is divided up over three spines and therefore takes the nature of a curve. It has always seemed to me likely that the late rounding off of originally sharp curves can be accounted for by this explanation, rather than by the theory that sharp angles tend to be rounded off by a readjustment of the articulations of the healthy vertebra above and below, or by changes in the form of the vertebra resulting from growth.

Of the various accompaniments of tuberculosis of bone, abscess formation is the commonest. In this case there is a small abscess on the left side of the diseased focus, on the anterior aspect of the necks of two or three ribs. It was dry and hard, and had evidently been there a long time, and it is quite evident that it owed its origin to the focus of disease in the bone. During all the time that this case was under treatment we never had any evidence of the presence of this abscess, either in the form of complaint from patient, or in the form of physical signs in chest examination. Sometimes these thoracic abscesses work their way through between the transverse processes of the verte-

brae, and through the muscles of the back to a point close beside the spines, but these cases are rare. Abscess accompanying dorsal Pott's disease is a comparatively rare condition to find diagnosed, and the explanation is probably the same as in this case, namely, that it appears insidiously, slowly enlarges, but because of its gradual development and deep position, causes no symptoms or physical signs, is gradually absorbed and, finally, ends up as a small nodule of caseous debris which ultimately becomes calcified.

Although this patient showed no signs of paralysis, three of the principal causes of paraplegia are demonstrated. Examination of the cut surface shows the antero-posterior diameter of the vertebral canal to be seriously encroached upon at two distinct

FIG. 2. FRONT VIEW SHOWING ABSCESS.

places, namely, opposite the kyphosis and about an inch and a half higher up. Below the kyphosis the diameter is about half an inch while at the two constricted points it is just a quarter of an inch, or barely wide enough to let the cord pass by without constriction. The narrowing of the lumen at the kyphosis is due to the displacement backwards of the segment of the spine above the diseased focus. The mechanics are beautifully demonstrated by bending the spine forward, when it will be seen that the cord is distinctly pinched between the back of the lowest healthy vertebra and the front of the lamina of the first diseased one. When the spine is hyperextended the lumen is at once increased so that the cord lies loosely in the canal. Upon this observation depends

the treatment of Pott's paraplegia. The patients are at once placed in a hyperextended attitude in a horizontal position on a frame or in a plaster jacket or a spine brace. This procedure produces the same effect as hyperextending the specimen, enlarging the narrowed lumen, and if the paraplegia is due to this cause it is rapidly relieved. It actually occurs that cases of paraplegia are sometimes cured in a couple of weeks by this plan of treatment.

The other constriction of the vertebral canal is due to an abscess outside the dura. This consists of a caseous mass, about an inch and a quarter long and three-sixteenths of an inch thick, situated directly behind the cord, between the dura and the laminæ. It is probably in communication with the abscess on the front of the ribs which is just opposite the lower end of the internal abscess. From the shape of the mass, one would judge that the abscess found it easier to spread up and down the vertebral canal than to make a localized bulging against the cord, and yet there are cases on record where the appearance of an abscess externally has been attended by relief of the paraplegia, evidently owing to the relief of pressure, and Joachimsthal has published photographs of an autopsy specimen showing an abscess producing a distinct cutting off of the cord.

The third cause of paraplegia is seen in the sharp angulation of the anterior wall of the vertebral canal at the kyphosis. Here the cord is stretched over a sharp ledge, and unless the deformity is accompanied by a marked shortening of the total length of the spine by the complete destruction of several vertebræ as in this case, there is sure to be sufficient pressure backwards on the front of the cord to result in paraplegia. The remarkable character of some of these cases, in which there is a considerable paralysis of the legs with but slight interference with sensation, is thus explained.

The observation of these pathological conditions naturally brings up the question of the treatment of paraplegia. It would seem an almost hopeless task to try to diagnose which of these conditions is producing the symptoms or whether it is a fourth cause, not demonstrated in this specimen, namely, a transverse tuberculous myelitis, and yet there are certain points which will assist in arriving at a decision in the matter. If the paralysis has arisen in company with a rapid increase in the deformity, we are justified in supposing that the cord has been pinched by the bones, or is being stretched over a sharp ledge. In that case the obvious treatment would be to place the patient on his back in a hyperextended attitude, and thus try to relieve the compression. If, after several months have elapsed, no improvement has taken place, other measures must be adopted. Sometimes paraplegia occurs when there is practically no deformity, or it

occurs while the patient is under treatment and without increase in the deformity. Under these circumstances it is likely that an abscess has developed, and is pressing on the cord, or that the tuberculous process has extended to the meninges, and has produced sufficient thickening to cause a transverse compression myelitis. The rational treatment in these cases is to wait a while to see if any improvement occurs from the conservative plan outlined, and if this fails, to proceed with open incision. When a laminectomy is performed, spicules of bone can be removed, the lumen widened, abscesses evacuated and thickened meninges divided.

The treatment of the deformity has given rise to much discussion. When you look at the specimen you are struck with the comparative ease with which the kyphosis could be straightened out by forcible pressure applied to the spines. When you remember, however, that even in the collapsed state of the spine, bony union may fail to occur, it would be useless to hope for the wide gap produced by a forcible correction to be filled in with bone. The operation which was formerly advocated by Calot, never resulted in permanent cure of the deformity, and was very apt to start up tuberculous meningitis or the miliary form of the disease.

The study of this specimen has led me into a discussion of various aspects of the disease, and into a review of many well-known points in its symptomatology and treatment, but the gross pathology of the condition is so rarely demonstrable that I trust I may be pardoned for the tediousness of detail.

169 College Street, Toronto.

ONTARIO MEDICAL ASSOCIATION

BY JOHN HUNTER, M.B., TORONTO.

Some four thousand delegates from all parts of the Dominion met here in Toronto to attend the "Laymen's Missionary Congress." Judging from press reports the "Congress" was not only a great success, but was also characterized by intense enthusiasm. The chief factors that contributed to the success were practically two, viz.: Every delegate seemed to be inspired by a definite purpose, and the speeches were all stamped with intense earnestness.

In the first week in June the medical men of Ontario hold their annual medical congress. Last year's meeting in Hamilton was a record one in regard to its scientific character, attendance, enthusiasm, and freedom of speech. From all accounts this year's meeting promises to excel all its predecessors.

There are many factors essential in the making of a successful meeting. Every officer should be an enthusiast. While dignity and decorum always enhance the character of a scientific gathering, yet sterile, stereotyped formality is especially depressive. There is a happy combination of dignity and of geniality which, when possessed by the officers, lends a peculiar subtle charm to the meeting. But, as in an army, good officers are powerless without competency in the rank and file, so in this fact comes the imperative appeal to every medical man in the Province. Each licensed physician in Ontario is an heir to the whole estate of medicine. What other men think, he may think, and is therefore free to exercise his powers of criticism and of judgment on any of the papers read, or on the discussions that follow.

It is an imperious law of nature that there can be no growth without death. The grain of wheat gives up its life in that form in order to become the blade, and the acorn to become the oak. The science of medicine can grow only by the acquisition of new truths, and by the destruction of all that is false and effete. It is the duty of the reader of a paper, and of every one who discusses it, to present as clearly as he can the knowledge of to-day, but it is just as imperative that he exercise his criticism and his judgment in eradicating all that modern research and experience has shown to be false. If, as in the case of the delegates to the "Missionary Congress," all the members of the Ontario Medical Association come with the definite purpose of contributing something to the general fund of medical knowledge and experience, a record meeting will be assured.

Now that cynical, indolent, or that ubiquitous, "too busy,"

"haven't time" freak may say: "What is the use of going to these meetings? I get along just as well as the fellows who go." There is nothing more deceptive than a man's opinion of himself. No other creature on earth, or perhaps in hades either, can deceive us more frequently or more effectively than we can, and do, deceive ourselves. We walk or ride along, as we think, at a fair gait. A man with a definite purpose in view, *e. g.*, to catch his train, passes us. If in the country, we soon see his form on a hill far ahead, or, if in the city, blocks away. We say, "He is in a hurry." Would it not be equally true to say, we are too slow? A few centuries ago eminent physicians were quite satisfied to go on with their vague theories about the circulation of the blood. Harvey, inspired by a mission, passed by and revealed the true facts in regard to the vascular system. Harvey was not going too fast, but his contemporaries were moving too slowly. They were self-deceived. Many readers of this Journal can vividly recall the scenes of forty or fifty years ago when, as students, they accompanied the eminent surgeons of those days on their morning work through the hospital wards. The surgeon would pass from case to case, raise the dressing, and expose a surface bathed in pus. He would stoop down and smell, then stir the fluid with his finger, wipe off the pus on the sheet, and with the most complacent look say to the students, "This is laudable pus." Lister, inspired by a mission, passed by the notables of his early day, and demonstrated the etiological factors in regard to suppuration. He taught that there was no such thing as "laudable pus," but that all suppurative processes are due to either unavoidable accidents, ignorance, or culpable negligence. To-day if the surgeon sees pus about the wound his conscience thumps him so hard that, even though he be an average Christian, he can scarcely restrain the "cuss words." Lister displayed no undue haste, but his co-workers were too slow. They were deceived by false theories.

History is for ever repeating itself. The "stay-at-home" from medical meetings, and the self-satisfied physicians of to-day, are passed by their confrères who are in medicine with a mission. A distinguished scientist has recently made the somewhat startling statement, that few men learn much after twenty-five. Whatever of truth this statement may contain as applied to men "en masse" it is the individual man's own fault if it ever can be truly said of him. The experience of every aged physician can give to his youthful confrère who is on the threshold of his career, the most positive assurance of at least two things. The young doctor in common with humanity at large, will meet in greater or lesser degrees of intensity, troubles, sorrows, difficulties, disappointments. In honor to his calling he must meet these with

calm, resolute determination. The other thing the young practitioner can fully assure himself of from the example of many of the old veterans in the medical corps is, that neither defeat nor despair can ever claim him as a victim until he is willing to surrender. Outside of his innate will-power few things can help young men to ward off defeat and despair more effectively than the society and co-operation of their fellows. Isolation from co-workers is a most stupid and detrimental policy for any young man to pursue.

The delightful season of the year, excellent travelling facilities at reduced rates, the pleasure of renewing old acquaintances, and of making new ones, and the valuable knowledge to be received and disseminated, all these should form sufficient attraction to assure a very large attendance for the coming meeting. The officers are highly favored by having an abundant supply of good papers from which to select a programme, and also the promise of the attendance of a number of distinguished guests from outside our Province. These factors should make a strong appeal to the young men, to those in mid-life, and to the aged, to be present at this annual meeting. But is there not yet even a stronger incentive than any that has been mentioned? Since the time of Hippocrates—and most probably for centuries before his day—medicine has made an effective appeal to men of the very highest intellectual and moral attainments to enter its ranks. If the science and art of medicine is to continue in the future, as it has done in its past history, to attract men of the highest type, it can only do so by the unfaltering devotion of its membership to the preservation of a high standard. If the day dawn when the rank and file become indifferent to the welfare of their calling, or become tainted with selfish or mercenary motive, that day will see the turning away from medicine of men of the highest moral and intellectual type. Our annual meetings, in the character of the work, the interest displayed, and the attendance registered, are the mile-posts marking the progress or decadence of medicine in this Province. Medicine in Ontario will never be menaced if all our young men become inspired by the advice so tersely given by one of the poets:

> "Greatly begin: though thou have time
> But for a line, be that sublime;
> Not failure, but low aim is crime."

DISEASES OF THE SKIN COMMUNICABLE TO MAN FROM ANIMALS

BY D. KING SMITH, M.D., TORONTO.
Demonstrator in Dermatology, Medical Faculty University of Toronto.

Most of the books on Dermatology mention the fact that quite a number of diseases of the skin of the lower animals are communicable to man, but fail to give any description of the diseases in animals so that they can be recognized or suspected by the medical man. Hence, I may be pardoned for giving a brief outline of some of the commoner diseases as they affect animals.

Ring-Worm.

In Horse.—The patches are chiefly located on the upper part of the body, on the shoulders, back, loins, croup, sides and flanks, where, in fact, the grooming instruments most readily carry the spores. These patches may, however, be met with on any part of the body, though they are rare in the lower parts. What is first noticed are circular patches, about the size of a quarter; they are distinguished by the dulness and erectness of the hairs covering them. The hairs fall off in a few days, and this is often the first symptom that attracts attention. Shortly the surface becomes covered with epidermic scales of varying thickness, which form flat crusts and are shed and renewed incessantly. Usually ringworm of horses is not accompanied by much pruritus.

In Dog.—Ring-worm of the dog is most frequently situated on the head and legs, usually commences around the lips and eyes, but patches may be found on any part of the body when the condition has been present for some time. At the commencement the patches are circular and well defined; by increasing in number and extent, they may unite and form irregular patches. They are soon covered with crusts, which are at first thin and of a dirty-gray hue. The pruritis may vary greatly, being very slight in some cases and intense in others.

In Sheep.—The condition is characterized by scaly or scabbed patches on the neck, shoulders and back; the wool may become entangled and fall out. It is accompanied by considerable itching.

In Calf.—Lesions very similar to those of dog.

In Birds.—Doctors J. M. H. MacLeod and J. Bunch have described ring-worm in a canary from which it was transmitted to children.

Favus.

In Cat.—The cat is the most exposed to this disease; the achorion attacks the extremity of the toes or base of the claws, but it may commence in other regions, as the sides of the chest. It gradually extends over the head, nose and thighs. The condition is marked by crusts, sulphur-yellow in color when recent, but becoming gray with time.

The Dog.—The lesions are very similar to those in cat.

Fowls.—The favus of poultry generally commences on the comb or chest. It manifests itself in the form of small, white or light gray, round or irregular spots that extend and become confluent, constituting an almost continuous thin covering or coating. The affected fowls exhale a mouldy odor somewhat similar to that noticed from people who suffer from favus.

Scabies.

All the sarcoptes of domesticated animals, according to Friedberger and Fröhner, are transmissible to man; some only produce a slight irritation and soon perish in the skin of man.

It has been demonstrated that the sarcoptes of man may be transmitted to the horse. Scabies is a much more serious disease in animals than in man, and if not treated, produces quite a degree of emaciation.

In lower animals usually the first sign of the disease is pruritus; the animal tries to rub itself everywhere, it bites itself wherever it can reach. On close examination papules will be noticed. In time the skin becomes considerably thickened. The only pathognomonic sign is the presence of the sarcoptes; these are found among the crusts on the parts attacked.

Tuberculosis.

This disease cannot be classed as a skin disease, and when it does affect the skin of man and animals it usually causes a benign lesion. The class of persons who are especially liable to contract tuberculosis of skin by handling tuberculous animals are butchers, knockers, etc.

Glanders.

The usual source of infection of this disease by man is from horses which have lesions of the mucous membrane of nose, etc. The common symptom of the horse is a chronic discharge from the nose; on examination of the nasal mucous membrance ulcers are usually present.

Anthrax.

Anthrax of man is usually contracted from sheep, goats, cattle or horses, but probably the commonest method is through skin, hair and wool of infected animals.

Anthrax of animals is an acute infectious disease often running a very rapid course, many animals dying in a very short time.

Actinomycosis.

There are no authentic cases reported of man having acquired actinomycosis from animals, and no doubt the source of infection of man and animals is from eating cereals.

HEADACHE

BY W. C. ABBOTT, M.D., CHICAGO, ILL.
Editor American Journal of Clinical Medicine.

A LADY comes with a history of persistently recurring headaches. The first thought naturally is fecal autotoxemia, but inquiry shows that this may be eliminated, because any failure at completely emptying the bowels has been so certain to aggravate the attacks that her attention to this matter has been compulsory. The eyes, ears, nose and throat have been under expert care, and these are to be left out of consideration. The other sources of reflex irritation are each passed in review, but still the cause of suffering is hidden. The blood is examined and shows the full hemoglobin, red and white cell count. Examination of the feces gives no clue.

We come at last to the urine, and here we find what we have been looking for—there is a trace of indican, a slight excess total of acidity, and only twenty grams of total solids where there should be fifty-five grams. The deficiency is in urea, uric acid, phosphates and chlorides. Two-thirds of the toxins that should be excreted through the kidneys are retained in the patient's blood, to traverse the circulation and exert their deleterious influence upon every functionating cell in the body, with local disorder manifested at the *locus resistentiæ minoris.*

This is no casual condition, since many similar examinations, made under varying conditions, demonstrate a like deficiency in the renal eliminative function.

The urine is to the body as the index to a book. Those who become learned and skilled in reading the indications supplied by this secretion have an insight into many obscure cases, that nothing else could give. The time has passed when a urine examination means taking the reaction and specific gravity, applying a few tests for albumin, sugar and perhaps bile, and squinting through a microscope at the casts and epithelia collected at the bottom of a conical beaker. We have learned that the most important revelation to be made is as to the functional capacity of the kidneys, and that the relative deficiency of the various normal ingredients has its meaning—is of primary importance.

We have one highly specialized remedy here, whose function is to increase the formation and excretion of urea—viz., boldine. We find that this patient's vascular supply is small, her blood-vessels have little capacity, and yet the tension is below normal. Here is one more opportunity for utilizing that marvelous com-

bination of Burggraeve, the wise old Belgian Emeritus Professor, the Dosimetric Triad—aconitine, digitalin and strychnine arsenate. Under the influence of this masterly combination the circulation is stimulated, capillary tension relaxed, vitality enhanced and every function activated. One of each every two hours (one of boldine and one of "trinity") is the treatment. The trace of indican warns us to restrict the supply of nitrogenous foods, and milk acidulated by the bacillus Bulgaricus is made the basis of her diet. Abundance of fresh *living* fruit juice is directed. All the resources of hygiene are utilized, and a life in the open air, plenty of exercise, and residence in high altitudes are all enjoined.

Altogether there is somewhat more in the study of a "headache" than the prescription of a few doses of phenacetin, fitting glasses, or administering a cathartic.

TETANUS, ITS TREATMENT WITH INTRA-SPINAL INJECTION OF MAGNESIUM SULPHATE: A CASE

BY ALEXANDER M'PHEDRAN, M.D.
Professor of Medicine and Clinical Medicine, University of Toronto.

In 1905 Meltzer found, as the results of experiments, that magnesium sulphate had the power of paralyzing the muscular system and producing anesthesia (Medical Record, lxvii., 965); later he suggested its intra-spinal injection for the relief of tetanus (*Journal of Experimental Medicine,* 1906, 708). Since then the suggestion has been put into practice with satisfactory results in a few cases, some of which were very severe.

The following case is of interest; I saw him, by the courtesy of Dr. F. J. Farley, of Trenton, who kindly furnished this brief history:

J. H., aged 13 years, weight 87 lbs., was carried into Dr. Farley's office on July 2nd, 1908. He was very rigid and unable to walk. On examination all the muscles were found rigid. His face was drawn and jaws tightly closed, but they could be opened a little. About every ten or fifteen minutes a spasm occurred during which he became perfectly rigid, the head being drawn backwards, arms fixed and muscles of back and abdomen very tense. He suffered considerable pain at the time. His illness had begun a day or two before with pain in the back. A week before that he had cut his foot while in the barnyard, where some years previously a horse, suffering from tetanus, had been killed by bleeding. On July 3rd he was much worse, suffering great pain and spasms of more or less intensity. Chloral, bromide and morphine were given freely, but he continued about the same until July 12th, when he was given two injections of antitetanus serum, after which he was not so well.

I saw him with Dr. Farley two days later, July 14th. The spasms had grown less frequent, but he was losing strength and looked ill and prostrate. In view of his general condition it was deemed important to arrest the spasms as soon as possible. For this purpose a 25 per cent. sterilized solution of magnesium sulphate in distilled water was injected into the spinal canal between the laminæ of the 3rd and 4th lumbar vertebræ. Only two ccs. were given, none of the spinal fluid being removed before the injection. No spasm occurred for ten hours, then there was a moderately severe one, and another the following morning. Dr. Farley then gave three ccs.; first allowing some cerebro-spinal fluid to escape. He had no further spasms after the second in-

jection. His condition improved steadily, and he quite recovered within a month.

After each injection there was relaxation of the muscles, but there was neither paralysis nor loss of sensation. The quantity of the solution injected was less than usually given, as the spasms were not of extreme severity. The quantity usually injected is 1 cc. to each 25 lbs. of weight of the patient, but this may be increased considerably. Yet with increasing doses there is increasing danger of depression of the respiratory centre. Elevation of the head has been found apparently to lessen this danger, probably by preventing the solution reaching the respiratory centre in the medulla. Meltzer has suggested that the removal of some of the cerebro-spinal fluid before giving the injection may permit its more rapid diffusion in the spinal canal, and, therefore, its more rapid effect, so that a less quantity may be required. If the toxic effects are too pronounced he suggests that they may probably be relieved by washing out the canal several times with sterilized distilled water or normal saline solution. This does not appear to have been tried in any of the cases reported.

Thus far eleven cases treated by intra-spinal injection have been reported, with five recoveries, adding the one here reported makes six cases, or 54 per cent. of recoveries. Three cases are reported in which the solution was given subcutaneously, two or three drams of the sulphate being given at each injection, and all recovered, but they were all mild and rather protracted cases.

The severest case treated with intra-spinal injection with recovery is reported by Miller, who gave eleven injections in fourteen days (*Amer. Jour. of the Med. Sci.*, 1908, cxxxvi., 781). He gives an abstract of all the cases reported up to that time. In some of the cases marked bronchorrhea occurred, and apparently contributed to the death of one or two of them.

All that can be claimed for the treatment is that it allays spasms and restlessness, makes the patient more comfortable, and permits food to be taken, and to this extent counteracts the exhausting effects of the tetanus toxin. By thus delaying the fatal termination antitoxin treatment may possibly be more effective; at all events more time is afforded for the generation of the patient's own antitoxin.

Selected Articles.

MUIRACITHIN IN THE TREATMENT OF SEXUAL IMPOTENCE OF MEN

BY DR. J. WAITZ, PARIS.
Faculty of Medicine.

THE question of sexual impotence, which is closely connected with that of diseases of the nervous system, becomes every day more complicated. The reports of research have been very numerous during the past twenty or thirty years, however, giving exhaustive enlightenment on neurasthenia in general, and on sexual neurasthenia in particular.

It is far from my intention to attempt to discuss or dissolve all these pending questions, I simply desire to show what satisfactory results I obtained in at least one case, by means of a special medicament employed in conjunction with other therapeutic treatment.

The preparation in question is Muiracithin, a combination of an extract from a Brazilian drug, Muira-Puama or Moyrapuama. and Lecithin.

After dealing with the different causes and forms of impotence, the author continues:—

As regards treatment, it will be seen from the description of the cases that I prescribed the orthodox remedies, that I also had to deal with patients upon whom all hygienic and physical remedies had been tried, and I must state that in such cases Muiracithin appeared to me to be the most efficacious. I refrain, therefore, from discussing any other remedies, dealing solely with the effect obtained by Muiracithin.

The results are very encouraging, and I shall always prescribe this valuable medicament. I attribute its efficacy to its peculiar composition, which is of double value, namely, on the one hand. Muiracithin strengthens the system and increases its elasticity. and, on the other, it restores the normal activity of the sexual central nervous system.

Dr. Aufrecht, analytical chemist to the Berlin Chamber of Commerce, has analyzed the pills, and reports as follows:—

"I bought some Muiracithin pills in the open market, and

* *Journal de Médecine*, Paris, No. 44, 29th October, 1905.

submitted them to a careful examination, which showed the following constituents: Organically bound phosphorus (lecithin), licorice powder, extractive matter, gummy and mineral substances (the latter chiefly containing phosphate of lime and alkaline carbonate), also small quantities of chloride, sulphate, iron oxide, and traces of magnesia. No other substance was found, and Muiracithin pills contain, therefore, lecithin, vegetable extractive substances, and licorice powder."

The literature bearing upon the subject becomes more and more complete. I have read recently reports upon the preparation in German, Italian, and Austrian medical papers.

Muiracithin is, as already stated, a combination of extractive substances of Muira-Puama and ovolecithin; the residue *in vacuo* of 100 grms. fluid extract of Muira-Puama and 5 grms. lecithin, with an addition of licorice powder, are made into 100 pills.

Case I.—R. I., forty-two years old, military man, healthy, tall, complained of a decrease in his sexual capability, and stated that his erections had become weaker and weaker during the last ten months, and were of much shorter duration. The patient once had gonorrhœa severely, lasting about six weeks. When about sixteen years old the patient had, during four months, two bad attacks of articular rheumatism, the second time the localization being in the right knee. He married at the age of twenty-six. His conjugal relations were always normal, without any weakness in the sexual functions being observed. He is father of three children, the youngest being two-and-one-half years old. Eighteen months ago he fell from his horse, which left pains in the back and loins for six months.

At first the patient attributed his sexual weakness to the fall from the horse, but on the advice of a friend he underwent hydrotherapeutics (Irish douches and cold sitz bath), he was also massaged for three months. An examination of the patient showed nothing of an abnormal nature. The sexual organ was well developed, the foreskin showing a slight eruption; no dilatation of the prostata. Urine contained no albumen or sugar.

I prescribed electrotherapeutics and massage of the sexual organ, stimulating and strengthening diet, a bath twice a week, and three Muiracithin pills pro die. A fortnight after the patient came to see me, and informed me that marital intercourse was satisfactory. A further examination of the urine showed no special pathological signs. I advised the patient to continue the treatent with Muiracithin (two pills pro die in the evening). When I saw the patient again later, he told me that he had completely regained his sexual capacity; he desired, however, to continue the pills for safety's sake, and I prescribed two or three

pills pro die during fourteen to twenty days every month. Some months after I saw the patient again; the action of Muiracithin had remained the same, although the pills had been discontinued three months ago, and the other treatment had been dispensed with, excepting two baths per week.

MRS. O'MALLY'S ADVICE TO HER SON UPON RECEIVING HIS DIPLOMA

So now you're a Doctor, with papers to show;
Of your great deeds in medicine the world will soon know.
All our pains and our aches now like magic will go
From the top of our head to the tip of our toe.
Now, don't be like Dinny, your brother, who's taken to law,
All the big words he uses would break a man's jaw.
He argues to-day that black must be white,
And to-morrow he swears it's as black as the night.
Sure the divil himself couldn't argue with Dinny;
Only last night he told me the Judge was a ninny
And the jurors themselves hadn't brains for to see
That all his great talking was only for fee.

Now the ladies will call on you morning and night
Whenever they get the least little fright.
Saying, "If the Doctor is in, I would see him, if you please,
For I'm after contracting a painful disease."
Then you'll run to the cupboard, and take out your pills
And say, "My dear madam, they're good for all ills,
Take one in the morning and one in the night,
And in forty-eight hours you'll be feeling all right."

With a smile on her face and your fee in her hand,
You'll take it by saying, "I'm at your command."
And be at her command if she has only a smile,
For healing the sick is always worth while.
Don't bother too much about getting your fee,
For to-morrow the Lord only knows where you'll be.
For if health was a thing that money could buy,
Sure the rich would all live and the poor would all die.

—*John S. Collins.*

Proceedings of Societies.

CONFERENCE OF CANADIAN HOSPITAL ASSOCIATION

The third annual meeting of this body was held in the Parliament Buildings on the 12th and 13th of April.

Dr. W. J. Dobbie, superintendent of the Weston Hospital for Consumptives, delivered the opening address. Dr. Dobbie referred to some of the questions the association would have to consider. One was the amalgamation of the Conference of Charities; another was the change in the place of meeting. He also called attention to the importance of a study of the relation of the various departments of a hospital staff with a view to obtaining the most effective work.

Miss Kate Mathieson, superintendent of the Hospital for Contagious Diseases, Toronto, presented a paper on that work.

Miss Mathieson said that the chief danger in spreading infection was in premature release from quarantine, and the contact of nurses and others having charge of patients, with the outside world. The question of "germ-carrier" was one with which it was found hard to contend.

Miss Mathieson said that every city should have its steam disinfecting station, where carpets, curtains, clothing, etc., could be attended to and returned to the home without a germ in them.

Continuing, the paper said there were four types of "germ-carriers" in disseminating infection, and, although of a comparatively recent discovery, were well worthy of consideration:

1. Mild or unrecognized cases.
2. Convalescents released prematurely from quarantine.
3. Nurses, physicians, attendants, members of the family, and articles which have been in contact with the patient.
4. Those persons who have never shown signs of illness, and who have not been in contact with a germ-carrier, and who, nevertheless, harbor a specific germ.

FRIENDS PERSISTENT.

Miss Mathieson said a great difficulty which Isolation Hospitals had to contend with was the visitation of friends.

"It makes no difference whether the friends come from the home of the poor or the palace of the rich," said Miss Mathieson. "They should be all treated alike—with a rigid application of the rules governing the control of infectious diseases."

Afterwards, in discussing this paper, Dr. Brown recalled the fact that several cases of infectious diseases developed at the General Hospital last year among the nurses and orderlies. On examination and culture of germ-carrying matter it was found that persons who had had infectious diseases showed indications of it months after the patient was supposed to be quite well.

CHATHAM'S PRIDE.

Dr. Charteris, of Chatham, said that his city had enjoyed remarkable immunity from typhoid fever during the last three years. They had less than ten cases a year on an average; last year they didn't have one. And this was in spite of the fact that they got their water from the Thames River, down which flowed the sewage of London.

"And the reason of our immunity," said Dr. Charteris, "is that we have a filtration system."

Miss Louise A. Brent, of the Hospital for Sick Children, said that while the outbreak of contagious disease in that institution was viewed with something like terror, it was not without its advantages, as it gave the nurses training in a branch they should know something about.

IDEAL SMALL HOSPITAL.

"The Ideal Small Hospital" was the subject of an address by Dr. R. W. Bruce Smith, Inspector of Hospitals for Ontario.

Dr. Smith referred especially to the hospitals in small towns and cities—hospitals with an accommodation of thirty beds or so. In every case, he said, it should be a hospital that provided for the future. Plans should be made on the "extending" scale. That is, the first building should be constructed so that additions could be made readily as required. Spacious verandahs should be provided, and resting rooms that will be free from dust.

Dr. Campbell Meyers presented a paper on "Neurapathic Wards in the Toronto General Hospital." He pointed out that these wards were not for the insane, but for the treatment of cases of functional nervous diseases, which if untreated would probably end in insanity. Broadly speaking, there were two types of patients which apply for admission—one in which there was bad heredity and a sub-normal amount of brain quantity normally, such as the dementia precox cases. Little, of course, could be done for such cases as these. On the other hand, the other sort of patients who applied were those of good heredity and of good brain capacity, but by reason of overwork, worry and strain of various sorts, break-down had ensued. If such cases as the latter are not treated the depression goes on and the result is acute insanity. This was the type of case from which good

would result from treatment. Dr. Meyers then presented a patient and read the history of the case. The patient had a history of six months' illness, and complained on admission of dull aching pain across the top of head, palpitation of the heart, a disordered stomach and general nervousness. The man was a printer by trade, who worked very long hours every day, and frequently twenty-four hours at a stretch. His first difficulty was a difficulty in coping with his work. This was followed by irritability both at home and in his office. Then suddenly he was seized at the end of a heavy day's work with the peculiar sensation of weight in his head. This was followed by fear of impending death and a loss of confidence in himself. He would wake up with a start in the night and find himself on the floor shivering. He suffered from dizziness and indigestion.

The patient was given the usual treatment of diet, full nourishment (commencing with milk), hydrotherapy, massage, and electricity. In addition to this every encouragement was given the patient in regard to the certainty of his recovery. The immediate relatives were rigidly excluded.

The patient was admitted on the 14th of December and discharged on the 20th of March. On admission he weighed 108 pounds. On his discharge he weighed 131¾ pounds. The week following his discharge he gained eight pounds. Dr. Meyers holds that the gain in weight is a very good indication of the gain in the nervous condition.

In discussing this paper Dr. Brown said that he had observed with very great interest the patience shown by Dr. Meyers, his assistant, and the nurses in caring for these patients, all of whom seemed to take a very deep interest in this department of the hospital work. He contrasted the treatment these cases get now with that which was meted out to them formerly in the general wards of the hospital. The importance of the care of these nervous patients was given more prominence every year. He called attention to the care that was given these cases in the General Hospital at Albany and the Johns Hopkins Hospital, Baltimore, by Dr. Barker.

Miss A. I. Robinson, Superintendent of the Galt Hospital, read a paper on "What a Woman's Aid Society Can Do." In connection with the work of the Galt Hospital, the Women's Aid had been in existence since the commencement of the hospital. It had raised money to furnish the building, had assisted to equip the laundry, built a nurses' residence, painted the wards, supplied all the linen required, and done the necessary sewing; they had also replaced broken articles of china, etc.

The money for these objects had been raised by attractive entertainments and house-to-house collections. This society had

established auxiliary societies in neighboring towns, which latter had rendered valuable asistance. In 1905 this society, with the assistance of the Daughters of the Empire had conducted a Made-in-Canada Exhibition, the money from which was spent in enlarging the Nurses' Residence Building, also decorating it and putting on a large verandah.

Mr. Edward F. Stevens, A.A.I.A., read a paper on "Some Points in the Architecture of Small Hospitals." He holds that the site of the hospital should be in an accessible location, but removed from noise. The building should be placed on a slope facing the south with extensive views, and sheltering woods to the north and east, if possible. The lot should be large enough for an extension. Mr. Stevens then considered several sites for the 30-50 bed hospitals, accompanying his description by blackboard illustrations.

In this small ideal hospital the administration should be placed centrally and contain the offices of the superintendent, the housekeeper and pharmacist; also the kitchen and the dining-room. The entrance should be attractive and inviting. The nurses' dining-room should be made attractive and the superintendent and assistant should have a separate dining-room. The kitchen should be well ventilated and lighted, and the range placed in the centre of the floor. The main elevator should be placed near the kitchen. It should be an automatic one. The ward buildings might be two storeys in height, running north and south. The windows should be large and near enough to the floor to allow patients to see out. The china cupboards should have a top sloping forward and shelves out from the wall so as not to hold dust. The bath-tub should be placed so that attendants may be able to stand at either side. All plumbing should be out from the wall. He advises a small crematory in every ward so that soiled dressings, faded flowers, etc., may be burned up immediately. He likes the idea of a nurses' duty room separate from the wards.

The whole south end of the wards should be glass, which does away with the need of a solarium. There should be plenty of airing balconies easily accessible.

The operating department should be in a separate building if possible, with a good north light and ceiling light. It should be artificially lighted with electric lamps from the ceiling or on a swinging crane. The sterilizing room should not be too small. The nurses' room should have cases for dressings and for warming blankets. In the surgeons' wash-up rooms elbow valves seem to be in most favor. The floors may be of glass, vitreous tiling, etc.

The maternity building should be separate, wards to contain

three or four beds with isolated rooms for infectious cases. The baby room should be sunny and have an airing balcony.

A contagious disease building is necessary, the wards of which may be around each side of a small corridor. The walls of the corridor may be glass so that the nurse can see the patients. Gowns may be worn when they visit the various wards, each ward containing patients suffering from the same infectious diseases. Balconies running along the outside of the wards serve as waiting-rooms for the patients' friends, who may look in through the windows or glass doors and even converse with their friends.

Following the annual dinner, Dr. John Amyot delivered an address on "Milk." He pointed out how important milk was as a food, and showed how liable it was to contamination, and what a suitable medium it was for bacterial infection. Dr. Amyot outlined the method of procuring certified milk, and also described the method of Pasteurizing milk. Until such times as we are able to secure the certified milk, Dr. Amyot is in favor of pasteurizing it. He did not approve of sterilization, but holds that the best solution of the milk problem at present is Pasteurization of all milk which is not "certified." He called attention to the outbreaks of typhoid and scarlet fever and diarrheal diseases which frequently occur from an infected milk supply.

Miss Louise A. Brent, of the Sick Children's Hospital, described the work which that hospital is undertaking in looking after convalescent patients. The nurse in charge does not live in the hospital, but has her luncheon there. She follows the patients to their homes and ascertains something of the condition, and if their illness is of a surgical nature, does the dressing. She visits the out-patient department, interviews the doctor there to learn if there is any case that she might visit. They find that by this method they can let patients go out sooner than they otherwise would. After a certain time children cease to thrive in a hospital, and do better outside. She teaches the mothers how to prepare the food and how to administer it. The nurse paid 165 visits last month. It is expected she will be especially valuable during the heated time of summer. The families show a great deal of gratitude for the work of this nurse. It is a good advertisement for the hospital. Miss Brent thinks that a district nurse should be added to every hospital.

Dr. H. A. Boyce, Superintendent of the Kingston General Hospital, read a paper on the "Evolution of Surgical Technique During the Last Half-century." Dr. Bryce took for his text the three discoveries in surgery, which he considered of prime importance; the use of the ligature by Parry, the introduction of anesthesia by Morton, and the application of antiseptics by Lister, founded upon the researches of Pasteur.

Dr. Boyce, in his exposition of his subject, described the scientific efforts which led up to these three great discoveries, and the incalculable good that had resulted from these advances.

Miss Miller, of Lindsay, read a paper on the "Inadvisability of Training a Nurse in a Small Hospital, with the Idea of Having Her Complete Her Training in a Large Hospital." This paper was a protest against the plans formulated by Dr. Hurd in a paper he read at last year's meeting of the American Hospital Association, in which he had concluded, among other things: First, that pupil nurses should be passed on after one year from the small hospital to the large, where there are more patients and larger opportunities for training; second, that in the educational system the grammar school precedes the college.

Miss Miller held that Dr. Hurd's comparison is not correct, that the relation of the small hospital to the large hospital is not similar to that between commencement and the higher schools. A case of pneumonia or typhoid is of as vital importance in the town as in the city, and necessitates just as efficient care. An obstetrical case needs the same attention in a hospital of thirty beds as in one of two hundred. If nurses are to be taken from the small hospital at the end of the year of service to continue their training elsewhere, what is to become of the sick people in the small hospitals?

In the small hospital there is not enough money to place graduates in charge of every department. Even if there was, Miss Miller holds that it would not be desirable to use them, as it would deprive the under-graduates of valuable experience. The work of administering a department can be done as efficiently by a nurse of the third year. The reports show that the graduates of the smaller hospitals, where all the principles of general nursing are taught, take their place side by side with their sisters from the larger hospitals.

Miss Miller then outlined her method of dealing with a class of 15 nurses in a 35-bed hospital.

The Nominating Committee then presented the following report, which was adopted:

President—Mr. H. E. Webster, Montreal.
1st Vice-President—Dr. D. Robertson, Ottawa.
2nd Vice-President—Dr. W. J. Dobbie, Toronto.
3rd Vice-President—Miss Green.
4th Vice-President—Mr. W. W. Kenney, Halifax.
5th Vice-President—Dr. Ryan, Kingston.
Secretary—Dr. J. N. E. Brown.
Treasurer—Mrs. C. Currie.
The next meeting will be held in Montreal.

SIXTEENTH INTERNATIONAL MEDICAL CONGRESS

Dr. W. H. B. Aikins has received the following communication, which will interest all those who intend being present at Budapest in August next:

CENTRAL BOOKING OFFICE OF THE ROYAL HUNGARIAN STATE RAILWAYS.

Budapest, April 1, 1909.

Dear Sir,—Your favor of the 18th of February, 1909, duly to hand. We beg to inform you that we are gladly willing to comply with your wishes; however you would very much oblige us by kindly taking notice of the following information and by answering the undermentioned questions:

In conformity with the arrangement made with the presidency of the Sixteenth International Medical Congress we have been entrusted to find accommodation for the partakers of the above-mentioned Congress, and this we perform in advance for the whole duration of the Congress by issuing "accommodation orders."

The period of validity for such accommodation orders is seven days with hotels and eight days with private dwelling houses, and it is to be understood that the day of arrival with the hotels is the 28th of August, but with private dwelling houses the 27th of August.

Should the arrival in Budapest take place after the 27th of August (with hotels after the 28th of August), and the departure from Budapest before the 4th of September, no reimbursement will be made for the time the lodgings were not used.

At the same time we have the pleasure to inform you that we are able to dispose of chambers at the following prices:

IN HOTELS.

Arrival on the 28th of August—Departure on the 4th of September.

Rent for a stay of 7 days.

Prices in Kronen.

Ser. A.—Single-bedded, K. 70-140; double-bedded, K. 84-210; three-bedded, K. 105-245.

Ser. B.—Single-bedded, K. 48-69; double-bedded, K. 64-83; three bedded, K. 80-104.

Ser. C.—Single-bedded, K. 21-47; double-bedded, K. 35-63; three-bedded, K. 42-79.

IN PRIVATE DWELLING-HOUSES.

Arrival on the 27th of August—Departure on the 4th of September.

Rent for a stay of 8 days.

Ser. D.—Single-bedded, K. 51-70; double-bedded, K. 76-100; three-bedded, K. 91-115.

Ser. E.—Single-bedded, K. 31-50; double-bedded, K. 46-75; three-bedded, K, 61-90.

Ser. F.—Single-bedded, K. 16-30; double-bedded, K. 30-45; three-bedded, K. 45-60.

Such chambers may be engaged in the following way: The person who orders lodgings indicates himself in which series and at what price he desires a single-bedded, a double-bedded chamber, or one with three beds, and whether in an hotel or in a private house. It is left to the choice of him who engages the room to fix the price between the maximum and the minimum rent of the respective category. The amount corresponding with the price chosen, is to be transmitted to us in advance. In return for it and in conformity with the order received we remit the sender an accommodation order for an appropriate lodging.

To recompense our trouble and expense taken in the accommodation the presidency of the Congress has stipulated a commission of kronen 8.50 per person; this commission is to be remitted to us at the same time with the rent, and receipt of it will be acknowledged separately, because the accommodation order acknowledges receipt only of the rent we have to pay for the respective lodgings, without any deductions.

In case the renter should be prevented from coming and taking possession of the lodgings—notice of which, however, has to reach us before the 20th of August—the rent paid in advance will be refunded against reception of the "accommodation order," however, with a deduction of kronen 10 a head; should such notice reach us after the 20th of August, kronen 20 will be deducted per person.

You will oblige us very much if—by taking into account the tables above—you would kindly fix upon the room suitable to your purpose, and kindly remit us the corresponding rent in addition with the commission, whereupon we shall immediately deliver you the necessary "accommodation order."

Respectfully yours,

CENTRAL TICKET OFFICE OF THE HUNGARIAN STATE RAILWAYS

The Canadian Journal of Medicine and Surgery

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Gynecology and Obstetrics—GEO. T. MCKEOUGH, M.D., M.R.C.S. Eng., Chatham, Ont.; and C. F. MOORE, M.D., Toronto

Medical Jurisprudence and Toxicology—ARTHUR JUKES JOHNSON, M.B., M.R.C.S. Eng., Coroner for the City of Toronto; Surgeon Toronto Railway Co., Toronto; W. A. YOUNG, M.D., L.R.C.P. Lond., Associate Coroner, City of Toronto.

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Clinical Medicine—ALEXANDER MCPHEDRAN, M.D., Professor of Medicine and Clinical Medicine Toronto University; Physician Toronto General Hospital.

Mental and Nervous Diseases—N. H. BEEMER, M.D., Mimico Insane Asylum; CAMPBELL MEYERS, M.D., M.R.C.S., L.R.C.P. (London, Eng.), Private Hospital, Deer Park, Toronto

Physiology—A. B. EADIE, M.D., Toronto.

Pathology—W. H. PEPLER, M.D., C.M., Trinity University, Pathologist Hospital for Sick Children, Toronto, Associate Demonstrator of Pathology Toronto University; Surgeon Canadian Pacific R.R., Toronto, and J. J. MACKENZIE, B.A., M.B., Professor of Pathology and Bacteriology, Toronto University Medical Faculty.

Ophthalmology—J. M. MACCALLUM, M.D., Toronto, Senior Assistant Eye Department Toronto General Hospital; Oculist and Aurist Victoria Hospital for Sick Children, Toronto.

Nose, Throat and Ear—PERRY G. GOLDSMITH, M.D., 84 Carlton St., Toronto, Laryngologist and Aurist, Provincial Institution for the Deaf and Dumb; Assistant Ear, Nose and Throat Department Toronto General Hospital.

Dermatology—D. KING SMITH, M.B. Tor., Toronto.

Address all Communications, Correspondence, Books, Matter Regarding Advertising, and make all Cheques, Drafts and Post-office Orders payable to "The Canadian Journal of Medicine and Surgery," 145 College St., Toronto, Canada.

Doctors will confer a favor by sending news, reports and papers of interest from any section of the country. Individual experience and theories are also solicited. Contributors must kindly remember that all papers, reports, correspondence, etc., *must be* in our hands by the first of the month previous to publication.

Advertisements, to insure insertion in the issue of any month, should be sent not later than the fifth of the preceding month. London, Eng. Representative, W. Hamilton Mlln, Thanet House, 231 Strand, W.C. Agents for Germany, Saarbach's News Exchange, Mainz, Germany.

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Editorials.

UNHEALTHY DWELLINGS CAUSE TUBERCULOSIS.

PROMINENT among the causes which produce tuberculosis in man is residence in unhealthy dwellings. The unlighted, unaired hovel is a hotbed of tuberculosis; but an expensive dwelling, with defective orientation, closed yard, dark rooms, and damp walls makes a close second. That a residence in un-

healthy dwellings provokes tuberculosis in the inhabitants is proved by the sanitary docket of houses in Paris. The statistics of that city show that, in eleven years, 101,496 Parisians living in 39,477 houses died of tuberculosis; that 820 unhealthy houses, containing 106,308 inhabitants, produced 11,500 of these deaths from tuberculosis, and that, consequently, the death-rate in these 820 houses reached 10.81 per 1,000, while the death-rate from tuberculosis for the whole population of Paris is 4.95 per 1,000. Dr. Roux, an authority on tuberculosis, says that the higher death-rate from tuberculosis in these 820 houses was evidently due to their unhealthiness, for their inhabitants belonged to the same social class as those who lived in the neighboring houses, where the death-rate was lower.

A competent architect can plan the orientation of a dwelling built in the country, so that sunlight will enter all the rooms at certain hours of the day, each room having a window opening towards the east, the south or the west. In a city, the orientation of a building is limited by adjoining houses and the direction of the street; but, even if it is erected in a block, a house may be oriented towards the east and west, or towards the south, but little sunlight coming from the north. In a narrow buiding a rear extension, like the letter L, should be placed so as to allow sunlight to enter the yard, and thereby gain access to the rooms, which open from it on the yard.

A closed yard interferes with the passage of air and prevents the renewal of air in the rear portion of a dwelling. The air cannot be renewed, to the level of the ground, in a yard surrounded on all sides by buildings over fifteen feet in height. The upper stories benefit by the partial aeration of the yard; but the aeration of rooms on the lower stories is defective. In some of the new apartment houses, the windows of rooms open on entirely closed yards. This is an architectural defect, for Rey shows that the closed yard of a large apartment house can be replaced by two yards, both of which open in different directions, towards the streets, thus establishing a connection between the air in the yards and the air of the streets, which is in constant motion. Dark rooms are common in some apartment houses. In looking over the plans of an apartment house for 12 families, 4 dwellings per storey, we notice that one-third

of each of the six dwellings, situated in the front part of the building, is composed of rooms the windows of which open on a hall lighted by a skylight. These rooms cannot be properly lighted, and are not aired at all, for the windows opening into a hall only produce an exchange of air between these different dwellings.

Dark rooms having no windows opening into the outer air should not be occupied, and a medical health officer should label them with a notice, informing people who do not attend lectures on hygiene, or who do not visit anti-tuberculosis exhibitions, that such dark rooms should not be occupied by human beings, either by day or by night. A damp house favors the advent of tuberculosis. A damp house is a cold house. It wastes fuel, because damp walls are good conductors of heat. By the same physical law, damp walls abstract heat from the bodies of the inhabitants. Animal heat thus conducted is a direct loss to the owners, because it interferes with the normal oxidation processes of their bodies, disorders physiological nutrition, and lowers the power of resistance, so that they are more prone to attacks of rheumatism or tuberculosis. Moreover, residence in a damp dwelling causes a chilling of the surface of the body, which forces the blood inwards towards the cavities, thus bringing on catarrhs, and thereby favoring the development of a tuberculosis, which may have been latent. Besides, damp walls favor the growth and preservation of pathogenic bacteria. The walls of a building become damp by the ascent of moisture into them from the damp earth about the foundations. This ascent of moisture is caused by capillary attraction. Dampness in the walls of a building can be prevented if the masons put in "damp courses" when laying the foundation walls. From half to three-quarters of an inch of asphalt, covering the whole width of the foundation walls, when they are being laid, adds little to the total cost, but when once the building is finished, it is difficult to make up for its omission. The floor of the basement should be covered with concrete, over which a thin layer of asphalt should be laid.

J. J. C.

INSURANCE AGAINST ACCIDENT OR INSURANCE AGAINST INVALIDISM.

Owing to the necessities of their profession, lawyers defend people against charges which they know to be true. They are advocates. The judge on the bench holds the scales between contending parties, and the verdict is rendered by the jury. In the eyes of an indiscriminating public advocacy of what is not true somewhat lowers the esteem of the legal profession. Be that as it may be, legal advocacy is a most useful method of assisting in the discovery of truth in disputed cases. A comparison is sometimes instituted between the attitude of the legal advocate and that of the medical expert witness. A lawyer may, at the request of the court, defend a prisoner accused of burglary, and may do his best to prove the innocence of his client. In doing so, he does not become morally soiled by his advocacy. For the time being, he is part of the machinery of a court of justice, which works methodically to reach the solution of a problem, and in doing his part the legal advocate helps to maintain the recognized tradition and practice of a learned profession.

The medical expert witness is not, or should not be, an advocate, in the sense that he will accommodate his opinions of a case for the purpose of sale. There may be black sheep who will do so; but they are the exceptions. The medical expert witness is an advocate in the sense that he maintains an opinion in a disputed case before a court, but he goes farther—he maintains the correctness of his opinion with an oath. Strikingly different opinions are held by honorable physicians: one man giving evidence on one side; another man giving directly opposite evidence on the other side. Such exhibitions of apparent inconsistency puzzle lawyers and disedify the public. Lawyers are accustomed to legal decisions, which are made upon authority, and not to medical decisions which are often necessarily indefinite. Striking differences of opinion between medical witnesses may be inherent in the very nature of the case in which they give evidence. For instance: A hunting man had influenza. He was recovering from it, and his wife entreated him "not to hunt to-day." He did hunt that day, and when so doing was thrown, soon scrambled up again, went on, and finished the run. Next day

he was not so well. The day after he had a rigor, and in three days he was dead of acute pneumonia. The huntsman had been insured against accident. The insurance company disputed the claim made by his heirs, and, when the case was brought to trial, medical expert witnesses differed as to the liability of the insurance company. Was the hunter's acute pneumonia the result of accident? Was it fair that the insurance company, restricting its policy to the direct result of accidents, should have to pay? We have no record of the outcome of the result of this trial. As preventives to this and similar intricate questions, which call for different opinions between medical witnesses in courts. Lauriston E. Shaw, M.D., F.R.C.P., in a lecture delivered to the students of Guy's Hospital, London (B.M.J., April 10th, 1909, p. 885), offers two suggestions. He would do away with medical advocacy and substitute a special tribunal to deal with these questions, in which independent medical men, with special experience, should act in a judicial capacity as arbitrators, or assessors to a legal arbitrator. Before such a tribunal medical evidence should be restricted to questions of fact, observed by medical men actually in charge of the patient. We think that such a board of arbitration would certainly be less expensive to the community than court fees, but, as the decision of the arbitrators in a case would not be necessarily final, a trial in court might be resorted to anyway.

Dr. Shaw's second suggestion seems a useful one. He would do away with accident insurance, and, instead of it, would have insurance against invalidism of all sorts, or what is known in Canada as health insurance, leaving out of consideration the traumatic element. The problem in most cases of accident insurance now is, how far has the traumatic element anything to do with the condition?

If, as he says, "The hunting man is insured against death from accident, it does not require extraordinary skill on the part of a medical man to certify that he is dead—a duty, by the way, which, under existing circumstances, is imposed upon us by the State, without remuneration."

It would certainly be a good thing for the bread-winners, if they were insured against invalidism of all sorts, traumatic or non-traumatic, and as the medical profession are always work-

ing hard to add the whole profession to the ranks of the unemployed, Dr. Shaw's second suggestion should receive their best consideration. J. J. C.

THE ONTARIO MEDICAL ASSOCIATION

As most of our readers know, the 1909 meeting of the Ontario Medical Association takes place in Toronto on Tuesday, Wednesday and Thursday next, June 1st, 2nd and 3rd. The meeting will be held in the Medical Building of the University of Toronto, a building that is not only central, but well suited for a meeting of this kind from the standpoint of acoustics.

The Committee on Papers and Business have been very busy for several months past, in getting together a programme that is highly scientific and well worth the attendance of members of the profession from all over the Province.

It is a great source of satisfaction to us to know that our esteemed confrére and the honored Regius Professor of Medicine at Oxford, Professor William Osler, is to be present, and will deliver the address in Medicine. The address in Surgery will be delivered by Dr. J. B. Deaver, the celebrated surgeon from the City of Brotherly Love. The subject of his address is "Acute Septic Peritonitis," and we feel that, owing to the differences of opinion held regarding the treatment of this grave condition, the discussion will be, to say the least of it, interesting. Dr. Emmett Holt, the well-known authority from New York City, will deliver an address, "The Results of the Serum Treatment in Cerebro-Spinal Meningitis." Dr. J. Alder, also from New York, has kindly promised to be present. Dr. H. E. Hayd, of Buffalo, has also promised to read a paper on "Umbilical Hernia and Its Operative Treatment with Special Attention to the Mayo Treatment." We understand that another well-known man from New York, Dr. F. W. Chappell, will be present and take an active part in the Section devoted to the diseases of the Eye, Ear, Nose and Throat. Dr. A. R. Robinson, a Canadian, who has made a reputation for himself in New York, and practices dermatology, will deliver an address, "The Tubercular Lesions of the Skin." Among others whose presence is also looked forward to are such men as Dr. W. P. Manton, of Detroit; Dr. E. W. Cushing, of

Cleveland; Dr. Ellice MacDonald. of New York; and in all probability a few of our Montreal brethren, including Drs. J. M. Elder, F. A. Lockhart, and H. M. Little.

It would be difficult to go into as full details as we would like regarding the rest of the programme, suffice it to say that the profession from all over the Dominion is well represented and the papers well worthy of a careful hearing.

President Dr. H. J. Hamilton and the other officers of the Ontario Medical Association have one and all worked very hard to make the 1909 meeting a banner one, and we would strongly urge upon our readers to take a few days' holiday next week and be present at this meeting. We feel that they will not only enjoy the few days' vacation, but return home benefited scientifically.

W. A. Y.

SHOULD INQUESTS BE MELODRAMATIC?

Professional men are awaiting with interest the report of the two alienists in the recent *cause célèbre*, concluded a few weeks ago at Hamilton.

In this case, the Coroner did wisely perhaps, if not well, by not adhering to the rules of evidence in allowing so much that was not evidence to come out, yet, why an inquest room should be turned into a scene of melodrama and every word published in the newspapers for other ill-balanced minds to gloat over, is more than we can quite understand. The lay public is getting too much of this sort of thing, with the Thaw and Hains cases on the other side of the line, and the Hamilton case on this side, the "thought waves" of pistol shots must be flying in all directions and doing more harm than the dreaded "yellow back" containing Jesse James exploits did to the young hopeful in the old barn-loft a few years ago. The professional men engaged on such cases study and analyse, and to them the story is nothing compared to the type of the participants and the motive underlying the action of certain human atoms that conform to a certain type. Perhaps no novelist has carried out this idea so well as George Eliot. Somehow one seems to see in her characters the underlying motive that prompted the action and feel that that type could not have fulfilled their destiny in any other way. But,

for the growing youth of this country to whom a glamor lies in such words as "shooting," "murder," "blood," etc., it is horrible to even think of the harm that may be done to their immature minds and natures by reading the lurid accounts of such recurring events.

Perhaps it would be well if we physicians were to advocate a little more mental training in the homes and schools and those in charge of colleges make their Golden Rule, "Whatsoever things are of good report, think ye of those things." W. A. Y.

THE MILK PROBLEM

One of the most important questions before us to-day is that of the supply of pure milk to cities.

The Canadian Medical Association has appointed a Milk Commission, which has done, and is doing, admirable work. The Academy of Medicine of Toronto has also appointed a Commission, which has also done effective work. And, lastly, the Provincial Legislature, by a resolution introduced by Mr. McNaught, one of the members for Toronto, has decided to appoint a Commission to go into this most important question of milk supply.

The Hon. Mr. Hanna, at the request of both of the above-named medical commissions, placed the laboratory of the Provincial Board of Health at the disposal of the commissions for the purpose of testing any samples which may be submitted for examination. In Dr. Amyot, the provincial bacteriologist, the champions of pure milk supply have an ardent supporter and assistant.

It is to be hoped that the members of the Government Commission will be speedily named, and that the men appointed will make a prompt and thorough inquiry into milk production, transportation and distribution.

We can predict what they will discover:

That the milk supply of most of our large cities is dirty, unfit for consumption, and infected with disease germs.

That this condition of the milk may be traced to one or more of the following causes:

Many cows have tuberculosis, whose milk you, gentle reader,

may have been drinking, may now be drinking, or may drink. Many people are drinking it.

Beyond the possibility of doubt, bovine tuberculosis is transmissible to human beings, particularly to children.

Beyond a doubt, a good many cases of typhoid fever in our cities have been directly traced to the milk supply.

Beyond a doubt, scarlet fever has been carried by the dirty milk bottle.

Beyond a doubt many (perhaps most) of the epidemics of diarrhea and other intestinal diseases among children in the summer months is traceable directly to dirty milk.

Beyond a doubt, milk from cows suffering from diseases, such as abscess of the udder, is now being sold in all our large cities.

You and your children, or your neighbor and his children, are consuming it.

The Pure Milk League of Toronto are saving the lives of many children by supplying them with a pure milk.

The Commission will find on nine farms out of ten the following conditions:

1. Cows being milked, whose flanks are plastered more or less with manure, small pieces of which at milking time drop into the milk. These pieces (though only the size of a pin point) are loaded with the colon bacillus, which in a few hours increase by the billion, and "colonize" (excuse the pun) the milk, giving it the "cowey" taste so frequently observable.

2. Long hair on the udders and tails, which also infects the milk by often dropping into the pail.

3. Ceiling of stables covered with cobwebs, which may drop dirt into the warm, rich liquid food in the wide-mouthed pail.

4. Manure in the trench behind the cows while the milking is going on.

5. Milk pails in nine cases out of ten that are infected—clean, perhaps, to the eye, but full of all manner of filth to the microscope.

6. Stables insufficiently lighted and ventilated.

7. Ten per cent. at least of the cows suffering from tuberculosis.

8. The evening's milk held over until the following morning, mixed with the morning milk, and carried in unclean cans through the heat to the train and on to the city, twenty-five to one

hundred miles away; sent to the retailer, sold to the customer next day.

Is it any wonder appendicitis is so common? Is it any wonder city children die by the hundreds each year? Is it any wonder that over fifty per cent. of our dead bodies show signs of tuberculosis? Is it any wonder that ninety per cent. of children suffer from surgical tuberculosis?

Within the last month two cases of typhoid fever have been discovered on farms supplying milk to one of our large Canadian cities. Thanks to the dealer he refused to collect the milk from these farms.

To be fit for consumption milk should be taken from healthy, clean cows—cows which have a pure water and food supply; cows housed in clean, airy and properly ventilated stables; cows milked by healthy milkers with clean hands into clean pails; the milk transferred into clean bottles (or other vessels) and kept cool until consumed.

By clean pails and clean bottles we mean pails and bottles that have boiled for at least twenty minutes.

This means a milk supply as perfect as we can hope to have within the next ten years.

As soon as possible all milk should be inspected, and as pure a supply as possible secured.

Any of it not up to the above standard should be heated to 140 deg. F. for half an hour, cooled at once, and in this cooled state delivered to the consumer, who should be taught how to keep it cooled until it is entirely used. B.

THE ACADEMY OF MEDICINE, 1909-1910

The Officers, Chairmen of Sections, and Elective of the Academy of Medicine, Toronto, for the ensuing year were duly elected at the meeting called for Tuesday, May 4th. The report of the Committee on Nominations was accepted with the following results.

MEMBERS OF THE COUNCIL.

Officers: President, Dr. Alexander McPhedran; Past-President, Dr. James F. W. Ross; Vice-President, Dr. A. A. Macdonald; Hon.-Secretary, Dr. H. J. Macdonald; Hon.-Treasurer, Dr. D. J. Gibb Wishart.

Chairmen of Sections: Medicine, Dr. Harley Smith; Surgery, Dr. A. Primrose; Pathology, Dr. G. Silverthorn; Ophthalmology and Oto-Laryngology, Dr. R. A. Reeve; State Medicine, Dr. J. F. Goodchild; Pediatrics, Dr. H. T. Machell.

Elective: Dr. N. A. Powell, Dr. E. E. King, Dr. A. H. Perfect, Dr. John Ferguson, Dr. F. N. G. Starr, Dr. J. M. Cotton, Dr. Walter McKeown, Dr. W. H. B. Aikins.

The Fellows of the Academy thus elected to office are all gentlemen of high professional standing, and, as a whole, popular and worthy to carry out the duties to which they have been called. One comment, however, we feel is incumbent upon us to make. There is already a feeling among not only the Fellows of the Academy, but the city profession as well, that the University of Toronto is figuring too strongly in the *personnel* at No. 9 Queen's Park. The Academy of Medicine is, or should be, an institution *for the profession.* It is a pity that the Committee on Nominations did not consider this point and avoid criticism. Let the Academy be in every sense representative, *not Institutional.*

The retiring President, Dr. J. F. W. Ross, deserves not only congratulations, but unstinted praise. He honored the Presidency by his presence. It means much to the Academy of Medicine, especially in its inception, to be represented by a man of innate refinement, whose personality has a charm, whose enunciation is unaffected, voice clear and diction convincing and yet unstilted. He should impress, not only the little inner circle of Fellows, but many distinguished men of science who from time to time tarry in our city and whom the Academy have as their guests. Consequently, how necessary that the President should be a man able to greet them.

> "Great thoughts in crude, unshapely verse set forth,
> Lose half their preciousness and ever must,
> Unless the diamond with its own rich dust
> Be cut and polished, it seems little worth."

The reports of the various Committees, as presented on May 4th, are eminently satisfactory, each Committee being able to "report progress."

For the present, the recommendation of the Publication Committee, as to the publication of transactions, has been laid upon the table. We think that the profession appreciate the combined assistance offered by the four Toronto Medical Journals, which

would have enabled the Academy to publish this year's transactions at very trifling cost. In view, however, of the possibility of the University of Toronto acquiring the premises now occupied by purchasing the leasehold, we think that the funds now to the credit of the Academy should be carefully conserved with a view to erecting a new building in fee simple in the course of perhaps the next couple of years.

The Committee on Finance have evidently been most conservative and careful as to all expenditures and are able to show a balance on the right side of the ledger.

It is gratifying that during the past year so many gifts have reached the Academy from Fellows, not only in Toronto and vicinity, but from as distant a point as Oxford, England. From that university town, there are constantly coming books, prints and other suitable tokens from one who has always taken a deep interest in our library and who to-day fills the honored position of Regius Professor of Medicine at Oxford, and whose name is too well known to require mention.

The Academy of Medicine is urgently in need of various improvements, especially of the building of a stack room; but it would be well for the new Council to be content, for the balance of the current year anyway, until they can rest assured that the present site is not in danger of expropriation. A more beautiful site could not be found than the present one; but of course a new building could be arranged more suitably and be larger in dimensions. If the Academy looks upon itself as a permanent institution, it must "drop anchor to posterity."

W. A. Y.

THE NEW GENERAL HOSPITAL PLANS

In the article appearing on pages 311 and 312 of the May issue of our JOURNAL, we regret that we did not go more fully into the matter. One of the Hospital experts who was requested by the Trustees of the new General Hospital to go over the plans of the new building was Christian Holmes, of Cincinnati, Ohio. This gentleman is, as most of our readers are aware, Dr. C. R. Holmes, the noted specialist. Dr. Holmes is for the present year the President of the American Laryngological, Otological and

Rhinological Association, which meets in Atlantic City upon the 3rd, 4th and 5th of this month.

Upon learning that he was to visit Toronto, the Ophthalmic and Oto-Laryngological Section of the Academy of Medicine secured a postponement of their regular meeting to the 18th of April and invited him to join them at dinner at the National Club, and thereafter to attend the meeting, which Dr. Holmes was good enough to do. About twenty-one sat down to dinner, all members of the Section, and a most pleasant and profitable evening was spent, Dr. Holmes taking part freely in all the discussions.

Dr. Holmes is a very extensive traveller, and has published a most interesting book upon his three months' trip to Spitzbergen in 1907. W. A. Y.

EDITORIAL NOTES.

Spes Phthisica.—Evidence accumulates to show that consumptives find their way to Canada in search of health, and, shortly after arriving in this country become public charges. Some of them have been so weak that they should not have left home; but the spes phthisica forms a curious characteristic of the consumptive's mental outfit. A fond, delusive hope, or the opinion of some illogical friend sends the consumptive on a wild goose chase after health to Canada. Dr. R. W. Bruce Smith, Inspector of Hospitals for Ontario, states in his report for 1908, that last August he saw a poor consumptive being helped on board a steamship at Glasgow, bound for Canada. The patient was so frail he could scarcely walk. He was not permitted to land in Canada, and died at sea when returning to Scotland.

Therapeutic Indications in Gout.—In *Fortschr. der Mediz*, 1909, No. 3, Dr. Umber makes a good summary of the main therapeutic indications in gout. Dishes rich in nucleo-proteids (thymus, liver, brain), are forbidden. Roast meats are more injurious than boiled ones. Fish is just as injurious as flesh meat. There is no difference between the effects of red and white meats in gout. During periods of depression, the food eaten by patients should be quite free from purins. Albumin-

ous foods, which do not contain purins, such as eggs, milk and cheese, should be used sparingly, because they increase the endogenous production of uric acid. Fats and carbohydrates lower the production of purins. Alcohol causes the retention of purins. Caffein may be changed into uric acid. The elimination of uric acid is favored by the drinking of large quantities of water. Alkalies cause the precipitation of the mono-urates, and are not serviceable in gout. Muscular exertion favors the destruction of uric acid. Dr. Umber's treatment for an acute attack of gout is: Rest, heat applied to the affected joint, and the administration of colchicum.

Scandinavia a Healthy Land.—Statistics just published by Dr. Jules Courmont, a French physician, show that the death-rate in Sweden has fallen to 14.3 per 1,000, and in Norway to 13.5 per 1,000. Dr. Courmont attributes this happy state of affairs in Scandinavia to the hygienic customs of the people—a fine system of public baths, and a perfect hospital organization, which, in cases of infectious disease, deals in the same way with the rich and the poor. Perfect discipline is noticeable in both countries in the fight against preventable diseases. The greatest respect is paid to scientific and medical discoveries, both public officials and ordinary citizens being animated with a sense of duty. Individual liberty is always made subservient to the public good.

The Militia Must Go Dry.—It is pleasing to learn, that the cultivation of the goose step by the Canadian militia will not be interfered with by the sale of intoxicants in canteens and camps in Canada. Following the conference between the Dominion Alliance and the Militia Council at Ottawa, imperative instructions have been issued by the Adjutant-General that the sale of all intoxicants is strictly prohibited in all canteens and camps of instruction, as being contrary to the King's regulations. A good many people will approve of a regulation which removes a formidable objection to the training of men in military camps.

Urotropin and Urodonal.—Urotropin (*ουρον*, urine; *τρεπειν*, to transform), obtained by combining formaldehyd with ammonia, was so designated by Arthur Nicolaier, a Ger-

man scientist, who experimented with it in 1894. About the same time G. Bardet, a French physician, studied the therapeutic applications of this drug. When taken internally, urotropin favors the elimination of uric acid, which forms soluble urates with it. Nicolaier thinks that urotropin is an excellent remedy, in the treatment of calculous disorders. He observes that the micro-organisms of ammoniacal fermentation and B. coli, which are frequent causes of bacteriuria do not develop in urine after the internal use of urotropin. It is used nowadays in the treatment of microbic diseases of the bladder and urethra in calculous pyelitis and pyelonephritis, in alkaline lithiasis (phosphatic gravel) . diseased conditions, often complicated with catarrh of the urinary passages, and also to destroy the B. typhosus in the urine of patients after typhoid fever. It is probable that when it passes through the body formol is disengaged, because urotropin does not produce an antiseptic effect on the urinary organs, when it is injected into the bladder. Urotropin is an excellent diuretic, and the diuresis produced by it may exercise an influence in facilitating the solution of urinary sediments. As much as 6 grams a day may be taken. Speaking generally, from 1 gram to 1.5 gram, divided into three or four doses, and dissolved in water, may be taken during the day. Recently a very effective solvent of uric acid, called urodonal, made by mixing together urotropin, sidonal and lysidin has been placed on the market. This new product appears in the shape of an effervescing granule, which may be taken in doses of a teaspoonful, three times a day, by patients in whom it is desirable to assist the excretion of uric acid.

Ground Coffee in Canada.—In Bulletin No. 172, Mr. A. McGill, chief analyst of the laboratory of the Inland Revenue Department, Ottawa, gives a very interesting report showing the present status of ground coffee in Canada as to purity. In all 449 samples were examined. Improvement is noted, because in 1904, when the last previous inspection of ground coffee was made, the genuine samples formed 60 per cent. of the whole collection, as contrasted with 87.1 per cent. genuine samples in the present collection. Of the 45 cases (10 per cent.) registered as adulterated in the present report, 21 cases are technically adulterated by containing chicory, without acknowledgment of

the fact, while 24 cases contain roasted grains without chicory, no additions of foreign grains being acknowledged. In reference to the adulteration of 21 samples of coffee with chicory, Mr. McGill remarks: "Many coffee consumers are accustomed to using coffee containing small percentages of chicory, and would be likely to complain did their grocer fail to add the chicory. Hence the retail grocer becomes accustomed to such an addition, and one can well understand how a subordinate may consider himself as doing no more than habit and duty require, in adding an ounce or so of chicory to the pound of coffee. No such explanation can be given for the addition of roasted grain to coffee; this is simply fraud, unless the addition be acknowledged."

Australian Cadets.—In the March, 1909, number of this magazine, editorial reference was made to "The Necessity of Physical Education in Public Schools, Collegiate Institutes and High Schools." Mention was made of the cadet corps of the Toronto schools and colleges, which show the beneficial effects of drill given to school boys. At a meeting held at the Normal School, Toronto, May 5th, 1909, presided over by His Honor Lieutenant-Governor Gibson, an address was given by Mr. Frank Fox, a member of the Australian National Defence League, on the measures taken to defend Britain in Australia, etc. Mr. P. Board, director of education in Australia, who accompanied Mr. Fox, also spoke on the Australian system of organizing cadets in the schools. He said: "In New South Wales, before the federation, this system was pursued, and now the whole of Australia has installed it, and the question of defence has become a national one. The teachers of the classes were the officers, and every boy over a certain age was equipped with a rifle. Dummy rifles were not supplied. The weapon, although a light one, was a real one, which the schoolboy could take to the butts, and practice shooting with. In this manner the schoolboys were taught to become familiar with arms, and at the close of their school days an effort was made to enter them regularly in the national defence service. Physical training went along with school training, and was as much of an essential as arithmetic or grammar. The girls took part in this, too, and had as much exercise, although of a different kind, as the boys did. The lads practised with their rifles, using them as wands." Ontario requires just a

little shaking up in the matter of drill and physical training for school children, so that the example of Australia in this regard may prove stimulating and instructive. J. J. C.

PERSONAL.

Mr. Roy Thomas, assistant to Dr. N. A. Powell, and Mr. Harold Clark, son of the Dean of the Medical Faculty of the University of Toronto, have, after a severe competition, been appointed to the house staff of the City Hospital situated on Blackwell's Island, New York, one of the best appointed hospitals, from a medical standpoint, in the United States, with a capacity of nearly 800 beds. This appointment is looked upon as one of the very best in the United States. Two gentlemen were chosen also from Harvard, two from Johns-Hopkins, two from Columbia, and one from McGill. The building in which the resident staff are housed cost $70,000. The appointment lasts for eighteen months. We congratulate our friends, Messrs. Thomas and Clark, who graduate this summer.

News of the Month

MILK COMMISSION—ACADEMY OF MEDICINE

The Chairman, Dr. C. J. C. O. Hastings, Toronto, called the meeting to order at 4.30 p.m.

The following members were present: Dr. Hastings, Dr. George Elliott, (Secretary), Dr. J. A. Amyot, Dr. A. McPhedran, Dr. J. H. Elliott, Dr. W. B. Thistle, Dr. J. N. E. Brown and Dr. Helen MacMurchy.

Mr. John Ross Robertson was present by invitation.

The subject under discussion was that of Pasteurization.

Dr. Hastings presented a memorandum on the subject presenting evidence and authorities in favor of Pasteurization (official) for all milk not officially certified.

Mr. John Ross Robertson then addressed the Commission, referring to his investigation of Pasteurization in New York hospitals, the mortality at the Children's Hospital, Toronto, the necessity of pure and clean milk in that institution. It was his determination to at once proceed to the installation of a Pasteurization plant in the Children's Hospital.

Dr. John A. Amyot advocated official Pasteurization, as well as other members of the Commission.

The following resolution was then presented and adopted unanimously:

It must be apparent that it will require time and education to comply with even reasonable safeguards, and it is equally evident that the number of dairy farms now in a position to live up to sanitary requirements will supply but a small proportion of the population of the city. Until this can be accomplished the Commission strongly recommends that all milk not officially certified be Pasteurized.

A vote of thanks was tendered Mr. Ross Robertson for his address as well as for his offer to send two or three members of the Commission to New York, at his expense, to investigate the subject of Pasteurization.

American Medical Editors' Association.—The coming meeting of this Association, to be held at the Marlborough-Blenheim Hotel, Atlantic City, June 5th and 7th, celebrates its 40th anniversary, and an unusual programme has been prepared for the occasion. It is expected that delegates from the foreign medical press will be present, and every medical editor should make an effort to meet with this Society.

The Physician's Library.

BOOK REVIEWS

Causes of Disability. As applied under Accident and Health Insurance Policies with special chapters on Policy Forms, Advantages of Examining for Accident Insurance Companies, Necessary Qualifications for Successful Examiners, Method of Making Examinations, Adjusting Claims and Manner of Securing Appointments as Examiner for Insurance Companies. Designed for the use of Insurance and Fraternal Examiners, General Practitioners and Students of Medicine, Attorneys and Corporations. By CHARLES HAMILTON HARBAUGH, M.D., Expert Examiner and Adjuster, Medical Director American Assurance Company, ex-President American Association of Medical Examiners and Philadelphia Medical Examiners' Association, formerly Demonstrator of Syndesmology in the Jefferson Medical College of Philadelphia, Member of the American Medical Association, Philadelphia County Medical Society, etc. Illustrated with one hundred and twenty-three half-tones and fifteen full page plates, eleven in colors. The Spectator Company, selling agents, New York.

Dr. Harbaugh's work consists of, in all, twenty-three chapters, the book being one of six hundred and fifty pages. It would be no easy matter to give in detail all the subjects included in his work, "Causes of Disability," Suffice it to say that he takes up in detail and at some length such subjects as "The Advantages of making Accident, Health and Liability Insurance Examinations," "The Necessary Qualifications for a Successful Insurance Examiner," "Examination for Accident Insurance Companies," "Policy Forms," "Injuries and Diseases of the Neck and Head, caused by Accidents and Resulting in Disability," "Injuries and Dislocations involving the Joints and the Bones of the Face," "Injuries to the Neck, including the Larynx and Trachea," "Accidents and Injuries involving the Chest, Abdomen and Back which result in Disability," "Accidents and Diseases of the Upper Extremities," "Accidents and Diseases of the Lower Extremities," "Illness causing Disability," "Diseases of the Brain and Nervous System," "Diseases of the Circulatory System," "Diseases of the Lungs and Respiratory System," "Diseases of the Digestive System," "Diseases of the

Liver," "Diseases of the Kidneys," "Fevers," "Miscellaneous Diseases," "Disability due to Poisons and Gases," "Adjusting Claims for Disability resulting from Accident and Disease," "Methods of Securing Appointments as Examiner for Insurance Companies, and when appointed how to command Examination in competition with other Physicians."

We have glanced carefully through Dr. Harbaugh's work and feel, after doing so, that the author is to be congratulated upon the result of his labors. We do not know of any other book published up to date which is quite as full of practical information, especially suitable for those physicians who make a specialty of Accident, Health and Liability Insurance. It seems to us that any of our readers who take an interest in this line of professional work will be consulting their own interests and those of the Company or Companies they represent by purchasing without delay a copy of this work. W. A. Y.

Differential Diagnosis of Bacteria and Practical Bacteriology. By E. P. Minett, M.D., M.R.C.S., L.R.C.P., F.C.S., Assistant Bacteriologist and Demonstrator in Bacteriology and Microscopical Pathology to Guy's Hospital. London: Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1909. (All rights reserved.)

This small book is intended to serve as a useful pocket laboratory companion, especially suitable to students and members of the profession who desire a working knowledge of the subject.

First, it treats in a condensed form of a general procedure for the identification of bacteria. After that there is a brief and compact summary of the principal staining methods, and lastly, an appendix giving an outline of several of the more important bacteriological processes at present in use for diagnostic and other purposes.

It will enable the student to refer quickly to the technique whilst actually doing the process. We predict for this pocket volume a ready sale. W. H. C.

Studies on Immunization and Their Application to the Diagnosis and Treatment of Bacterial Infections. By Sir A. E. Wright, M.D., F.R.S., Director of the Department for Therapeutic Immunization, St. Mary's Hospital, London, W.; late Professor of Pathology, Army Medical School, Netley. London: Archibald, Constable & Co., Limited. 1909.

Ever since Sir A. E. Wright delivered the opening lecture to the medical faculty of the University of Toronto some two or three years ago, Canadians have taken more than ordinary interest in the study of opsonins. Dr. Wright is undoubtedly a leader in

therapeutic immunization, and we bespeak for his work, now before us, a very hearty reception throughout Canada.

The work is divided into two parts. Part one is devoted to "The Anti-Bacterial Elements of the Blood Fluids," and part two to "Therapeutic Immunization." Dr. Wright's book covers in all nearly five hundred pages, and is devoted to the most recent views on this subject. In part one the author has placed those papers which deal primarily with the protective elements of the blood. They are arranged in three sub-sections entitled, Agglutinins, Bactericidins and Opsonins. In part two we find those of Dr. Wright's papers dealing with the real subject matter of his book, namely, the problem of "fighting the bacterial infection by those defensive agencies which the organism itself employs when it contends with microbic invasion." Part two covers in all nearly three hundred pages, the different chapters having already appeared in such publications as *The Lancet, The British Medical Journal, Clinical Journal, the Transactions of the Medico-Chirurgical Society,* and *The Practitioner.*

It would be a difficult matter to attempt to review this book in detail; suffice it to say that perhaps no more important work has appeared from any medical press in years.

A Text-Book of Materia Medica, Pharmacology and Therapeutics. By GEORGE F. BUTLER, M.D., Professor and Head of the Department of Therapeutics, and Professor of Preventive and Clinical Medicine, Chicago College of Medicine and Surgery, Medical Department Valparaiso University. Sixth edition, revised and enlarged. Octavo of 708 pages. Philadelphia and London: W. B. Saunders Company. 1908. Cloth, $4.00 net. Half Morocco, $5.50 net. Canadian agents: J. A. Carveth & Co., Limited, Toronto.

We have found great satisfaction in reading Dr. Butler's work. It is written in an agreeable style, and contains a great deal of therapeutic comment, which commends itself to the mind of a practitioner.

The study of the official remedies has been placed in accordance with the eighth decennial revision of the U. S. Pharmacopeia. A few non-official remedies have also been described.

Under the head of untoward action the effects of medicines due to idiosyncrasy of the patient are recorded; under poisoning, effects due to toxic doses, which exert a definite influence irrespective of idiosyncrasy.

In a chapter on organo-therapy, thyroids, anti-diphtheritic serum, typhoid serum, cholera serum, anti-syphilitic serum, anti-tuberculosis serum, anti-rabic serum, etc., are described.

Opsonins, the opsonic index, and the vaccines are also described.

A good chapter on the art of prescribing ends the volume. Dr. Butler is at home in this work, drawing on his own experience as teacher and practitioner. J. J. C.

Diathesis and Ocular Diseases. By A. Maitland Ramsay, M.D., Ophthalmic Surgeon, Glasgow Royal Infirmary; Lecturer on Eye Diseases, University of Glasgow; Author of "Atlas of External Diseases of the Eye," "Eye Injuries and Their Treatment." London: Baillière, Tindall & Cox, 8 Henrietta Street, Covent Garden. 1909. Pp. 184; 17 plates. Three shillings and sixpence net.

A diathesis, according to the author, is a permanent condition of the body (hereditary or acquired) which renders it liable to certain special diseases,—a bodily condition predisposing to a particular disease.

Some of us may think that the so-called diathesis is not a predisposition to a disease, but rather that the patient really has the disease. That aside, we have attention here called to the neurotic diathesis; the scrofulous diathesis; the arthritic diathesis, rheumatic or gouty. Upon this groundwork is built up a very readable account of the constitutional causal factors in inflammations of the conjunctiva, sclerotic, iris, choroid, retina, glaucoma and toxic amblyopia.

The general practitioner, for whom this most valuable little book is specially intended, is too apt to regard these conditions as mere local manifestations, and hands them over holus-bolus to the oculist, who, seeing but little of general medicine, very easily falls into the same idea.

A perusal of these chapters may well lead to a saner outlook on the part of both oculist and general practitioner. J. M.

The Fluids of the Body. By Ernest H. Starling, M.D., F.R.C.P., F.R.S., Professor of Physiology in University College, London. London: Archibald Constable & Co., Limited. 1909. Price, 6s., net.

The first seven chapters of this volume are based on two courses of lectures which were given at University College, London. They deal with problems of pure physiology. The subjects discussed are: "The Physical Properties of Protoplasm," "The Osmic Relationship of Cells," "The Intake of Fluid," "The Exchange of Fluids in the Body—the Production of Lymph," "The Absorption of the Intestinal Fluids," "The Output of Fluid," and "The Fluid Balance of the Body."

The eighth and last chapter deals with a matter of practical

interest in the treatment of disease, "The Causation of Dropsy." After reading the first chapters it is more easy to understand how the fluids give rise to the condition known as dropsy. The author states that in all cases the primary cause of edema is an increased transudation, but there is also a derangement of some part of the absorbing mechanism.

This small work is very attractive to those who are interested in the explanation of the physiological processes which govern the distribution of the body fluids. A. E.

Manual of Operative Surgery. By John Fairbairn Binnie, A.M., C.M. (Aberdeen), Professor of Surgery, Kansas State University; Kansas City Fellow of the American Surgical Association; Membre de la Société Internationale de Chirurgie. Volume I—Operations on the Head, Neck, Nerves, Trunk, Genito-Urinary System. Fourth edition, revised and enlarged, with 713 illustrations, a number of which are printed in colors. Philadelphia: P. Blakiston's Son & Co., 1012 Walnut Street. 1909.

There is one feature about this book that at once strikes one, viz., that a large mass of *repeated* rubbish about amputations and ligations has been omitted. Most authors seem to think that page after page must be taken up with descriptions of amputatations—most of which are never done in these days of antiseptic surgery—and with ligations of vessels that properly belong to a text-book.

There are a few more things that might well be left out, for example, the flap operations of exstrophy of the bladder, for which the operation of extra-peritoneal transplantation might well be substituted.

On the whole the book is useful, compact, yet comprehensive, and should lend itself to the needs of the already overworked student. F. N. G. S.

High Frequency Currents. By Frederick Finch Strong, M.D., Instructor in Electro-Therapeutics at Tuft's College, Boston. With 163 illustrations in the text. New York: Rebman Company, 1123 Broadway. Cloth, $3.00.

The author devotes a good deal of attention to the historical side of his subject with copious descriptions of apparatus, past and present. The question of physics is treated in a scientific manner, and very graphically. A very pronounced prejudice in favor of the Tesla currents is exhibited, and the author is still quite optimistic concerning them, *e.g.*, "High-frequency Currents, more especially those of the Tesla type, possess therapeutic powers which are not exhibited by any of the remedial agents

known to the profession." As for the future, "Vegetables obtain their energy direct from the sun in the form of radiant heat and light, and it should, therefore, be quite possible for man to obtain his energy directly, provided a vibratory force could be obtained which would be capable of ready diffusion through the tissues and absorption by the nerve centres. To a certain extent, the Tesla High-frequency Current possesses the above-mentioned requirement, and the next decade will probably witness the satisfactory demonstration of the ability of properly attuned electrical vibrations to take the place of the entire food supply with the exception of a small amount of proteid material for tissue repair." Oh, joy! But, besides being a dreamer and theorizer, the author has been a very prolific discoverer and inventor along the lines of High-frequency Currents, a fact which he takes infinite pains to keep constantly—and rather tiringly—before the minds of his readers. The space alloted to real therapeutics might with advantage have been of more generous proportions, however, the author hopes to remedy this short-coming by compiling a "Clinical Manual" as a sequel to the present volume within a couple of years, and asks the co-operation of all his readers who are practitioners in electro-therapeutics. The book is excellently gotten up and has really much to commend it.

C. R. D.

Golden Rules of Anesthesia. By R. J. Probyn Williams, M.D., Senior Anesthetist and Instructor in Anesthetics at the London Hospital, Lecturer on Anesthetics in the London Hospital Medical College, Anesthetist to the Royal Dental Hospital of London, late President of the Society of Anesthetists.

This little book embodies in a wonderfully compact form the principal points of Anesthesia, and should be in the hands of every student and busy general practitioner. It can be read through at a sitting, and for one who only gives an occasional anesthetic, it is worth its weight in gold.

Cosmetic Surgery. The correction of featural imperfections. By Charles C. Miller, M.D. Second edition enlarged. Including the description of numerous operations for improving the appearance of the face; 160 pages; 96 illustrations. Prepaid $1.50. Published by the author, 70 State Street, Chicago.

Miller's little book comes to us in a thoroughly revised form. By a careful perusal of the text, together with a close study of the diagrams, one may derive much useful information.

F. N. G. S.

HOWARDS & SONS, LIMITED*

Owing to the fact that the name of "Howards" has been before the public in connection with chemicals for considerably more than a century, a few sentences about the early history of the firm will probably be of interest to our Canadian friends.

In 1797 Luke Howard and William Allen went into partnership as Chemical Manufacturers, and carried on a business at Plough Court, Lombard Street, with a factory at Plaistow. The business grew rapidly, and in 1807 the partnership was dissolved, William Allen continuing the druggist business at Plough Court, which developed gradually into the well-known firm of Allen & Hanburys, and Luke Howard continuing the Chemical Department in larger premises at Stratford.

The firm of Howards in these early days obtained considerable fame for their mercurial preparations (especially calomel), refined borax, sublimed camphor, soda bicarb, ether and magnesia. Calomel is still manufactured in the identical spot in the Stratford factory, and by the same process as that patented in 1807 by Joseph Jewell, the first "foreman" and afterwards a partner in the firm.

It is impossible to deal with the gradual increase in the number of articles manufactured and the growth of the business, but it was between 1825 and 1830 that quinine was first taken up and worked on a large scale, mainly through the researches of John Eliot Howard, F.R.S., with whose name this article has been so closely associated.

The business has rapidly increased, and in 1898 it was found necessary to acquire more room for extension than was available in the already crowded Stratford factory. A site was obtained at Ilford, and a large new factory has rapidly sprung up there as fast as the growing business demanded increased accommodation. The concern was in 1903 converted into a limited company, all the existing partners joining the new board as managing directors. All six of these are "Howards," and they are all direct descendants of

LUKE HOWARD, THE FOUNDER OF THE FIRM.

The list of awards obtained by the firm in the past is a long one, beginning with the chief prize at the great Exhibition of 1851. Among our more recent successes are the Grand Prix, Paris, 1900, Grand Prix, St. Louis, 1904, Gold Medal, Buenos Aires, 1904, and Grand Prix, Franco-British Exhibition, Lon-

*Publisher's Department.

don, 1908, showing the high reputation of the firm has been more than maintained of late years.

The high standard of purity of our articles entails, of course, an enormous and ever increasing amount of qualitative and quantitative chemical analysis. Our analytical department consists of a large staff of highly qualified chemists, and is under the direct personal control of the directors; in fact certain portions of the analytical work are invariably performed by directors themselves.

Every pharmicist knows the quality of our quinine, sodii bicarb Epsom and Glauber's Salts, and calomel (the original fawn-colored variety), places them in a class by themselves of unrivalled superiority, but it does not seem to be so generally known that we make a large number of other preparations, and we would remind our friends that in the case of every article mentioned our name implies that the article supplied is manufactured by us at our Stratford or Ilford factories with the same personal care and supervision that have, during the past century, gained and kept for our goods the reputation of "The Best."

We believe that almost all pharmacists and doctors would be glad to have the benefit of the guarantee which is implied by our name, and would like to ensure accuracy in dispensing by using our articles.

We would remind you that very nearly all our preparations are sold at lowest market prices. There are a few of special purity for which we ask a little more than is charged for the ordinary articles in the market.

Should you find any difficulty in obtaining our articles at reasonable prices, we shall be glad if you will let us know, and we will inform you where you can readily obtain them.

Having now arranged to have depots in Montreal and Toronto for all our most important preparations, the druggists from whom you obtain your supplies will be in a position to let you have our articles with promptitude.

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